

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 21st Year • Single Copy: \$1

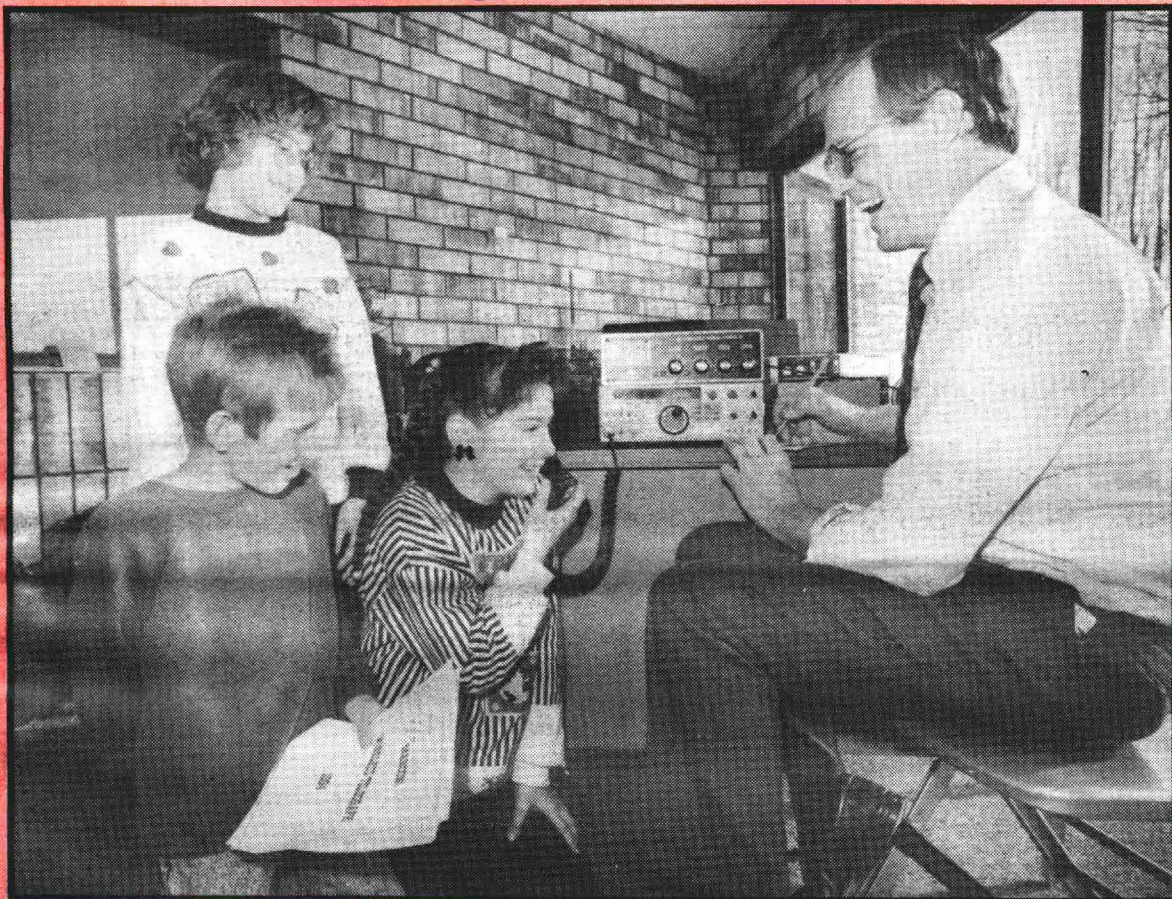
Vol. 21 No. 4 - 244th Consecutive Monthly Issue - Baraboo, Wisconsin - April 1990

RETURN ADDRESS:
Kenneth A. Ebnetter
822 Wauona Trail
Portage WI 53901

BULK RATE
U. S. POSTAGE
PAID
PERMIT #265
PORTAGE WI 53901

Third Class Mail - Forwarding and Return Postage
Guaranteed - Address Correction Requested

Showing off the Hobby



On January 27, 1990, the "Leisure" section of the Post-Crescent (Appleton, WI), published a feature story about Amateur Radio. Above, radio amateur Myron Jackson, WB9BBI, a teacher at Madison Junior High School, shows off Amateur Radio to three youngsters. Last year, Jackson received a mini-grant to set up a ham radio station at the school. Since the station began operating, young people have talked to hams in Lithuania, Poland, Yugoslavia, Italy, and Argentina and, of course, the United States. Jackson has also taken his equipment to several elementary schools. One little girl, thrilled by the opportunity to talk to someone in Germany, wrote Jackson a thank you note, saying she "must be one of the luckiest students in the world." Jackson is president of the Fox Cities Amateur Radio Club.

(Photo by Mark Courtney/Post-Crescent)

FCC Releases Text of NPRM For Codeless License

In its release dated February 16, the Federal Communications Commission detailed its rationale behind several issues regarding its newly proposed Communicator Class of amateur license. The FCC sees Communicator as the class of license which most newcomers into the hobby would elect to qualify for. This premise was used as the basis for its proposed elimination of the Novice Class license. Since FCC also proposes a comprehensive 60 question written test for the Communicator, they contend that the Communicator Class will also take the place of the Technician Class for future licensees.

Under the FCC proposal, "a Communicator licensee who passes, or otherwise receives credit for a telegraphy examination, would be authorized the additional privileges of the Technician Class." FCC intends to further simplify its documentation process by permitting Volunteer Examiners to issue a Certificate of Successful Completion of Examination (CSCE) as proof of a Communicator's code proficiency instead of formally upgrading them to Technician. The upgraded Communicator would sign their call followed by the identifier "/AC" and it appears that they

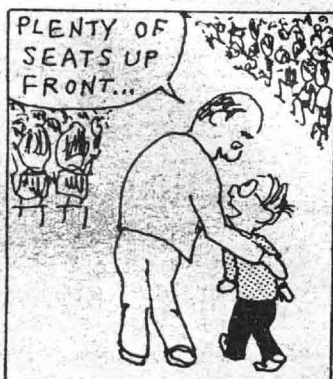
(Please turn to page 12)

ON THE INSIDE

Swapfests and Other Social Events--	2
Club Meetings-----	2
The Test Point-----	3
Wisconsin Nets Association-----	4
Here and There-----	5
John's Junk Box-----	6
WARC Bands for the Apartment Dweller Antenna-----	7
ARRL Comments in WARC '92 Inquiry--	8
The Communicator-----	9
Riverland Amateur Radio Club-----	12
Eau Claire Amateur Radio Club-----	12
Northern Wisconsin Radio Club-----	13
Part 97 "Cleanup Petition"-----	14
The Wisconsin Packeteer-----	17
Yellow Thunder Amateur Radio Club--	19

ELMER

by Rich Regent, K9GDF



Swapfests and other Social Events

SUNDAY, APRIL 8, 1990. Madison swapfest sponsored by the Madison Area Repeater Association at the Dane County Expo Center, Forum Building, Madison WI. Contact: MARA, P.O. box 8890, Madison, WI 53708-8890. (608)-249-7579 (see ad last month.)

SATURDAY APRIL 14, 1990. RiverLAN Spring Packet Conference. See the Packeteer section for details.

APRIL 27-29, 1990 - Dayton Hamvention - No more need be said. This is the BIG ONE.

SATURDAY, MAY 5, 1990. The Twelfth Annual Swapfest of the Ozaukee Radio Club will be held at the Circle B Recreation Center in Cedarburg, WI. Contact: ORC Swap, N5415 Crystal Springs Ct., Fredonia, WI 53021. (414) 692-2329

SATURDAY, MAY 12, 1990. Swapfest 1990, sponsored by the Tri County ARC, at the Jefferson County Fairgrounds, Highway 18 West, Jefferson, WI. Contact: Tri County ARC, P.O. Bx 112, Jefferson, WI 53449. (see next month BSSS for more details.000000

SATURDAY, MAY 12, 1990. Lakeshore Hamfest, Manitowoc, WI sponsored by Mancorad Radio Club. Manitowoc County Expo, intersection of hwy 42-151 and I-43 on county hwy "R", follow signs to center. Contact: Mancorad Radio Club, P.O. Box 204, Manitowoc, WI 54221-0204. Call "Red" (414) 684-9097 (days) or "Lou" (414) 682-2557 (nights).

JUNE 2 AND 3: S.M.U.G. presents the 1990 Sinclair Computer Exposition at the Waukesha (WI) Holiday Inn at Highways 18 and I-94. There will be seminars, door prizes, a swap shop, also software, peripherals, hardware, and lots of

other stuff. There will be a banquet Friday night, June 1. A SNUG meeting will be held Saturday night, June 2. Advance tickets: 1 day, \$4.00; both days, \$7.00; banquet, \$16.00; swap table (6 ft. by 30"), \$25.00 (including 2-day badge). Prices at door: 1 day, \$5.00; both days, \$9.00. At door prices for banquet and tables are same as advance prices. Limited seating for banquet, and limited table space for swap. More information from Bill Heberlein, 5052 N. 91st St., Milwaukee, WI 53225, or call Neal Schultz between 7 and 10 p.m. at (414) 353-4522. Mail reservations to Expo Reservations, P.O. Box 101, Butler, WI 53007.

JUNE 8-10, 1990. ARRL National Convention, Kansas City, MO.

SATURDAY, JUNE 17, 1990. The Central Wisconsin Radio Amateurs will hold their annual Swapfest at the University Center on the UW-Stevens Point Campus in Stevens Point, WI. Morning and afternoon ARRL/VEC exam sessions, Seminars, tables and power available for commercial vendors. Contact: Art Wysocki, N9BCA, 3356 April Lane, Stevens Point, WI 54481.

SATURDAY, JULY 7, 1990. South Milwaukee ARC Swapfest at the American Legion Park, Shepard Ave., Oak Creek, WI. Contact: SMARC, P.O. Box 102, Milwaukee, WI 53172. (see ad last page.)

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings

The full listing of meeting locations is not being carried this month to allow room for other information. The following are changes or additions to last month's listing. Please refer to the March 1990 issue of BSSS for information on other clubs and their meetings.

QCWA - WISCONSIN CHAPTER #55

Contact Robert Halbman, AJ9P, Treasurer, For information about meeting dates or joining QCWA Chapter #55. The spring banquet meeting will be in Fond Du Lac at the "Club", 977 W. Scott St. The Wisconsin Chapter holds Spring and Fall dinner meetings.

Let Badger State Smoke Signals know your club's meeting dates; and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

The TEST POINT



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area. (Underlined are added or changed since last month's BSSS.)

April 7, 1990	Madison, WI
April 4, 1990	Milwaukee, WI (MRAC)
April 14, 1990	Eau Claire, WI
April 21, 1990	Milwaukee, WI (BE)
May 2, 1990	Milwaukee, WI (MRAC)
May 5, 1990	Milwaukee, WI (BE)
	(Ozaukee Swapfest)
May 12, 1990	Manitowoc, WI
	(Lakeshore Hamfest)
May 17, 1990	Onalaska, WI
June 6, 1990	Milwaukee, WI (MRAC)
June 16, 1990	Dubuque, IA
June 17, 1990	Stevens Point, WI
July 13-14, 1990	Eau Claire, WI
September 13, 1990	Eau Claire, WI
September 15, 1990	Milwaukee, WI (BE)
September 15, 1990	Dubuque, IA
October 20, 1990	Milwaukee, WI (BE)
November 3, 1990	Menomonie, WI
November 17, 1990	Milwaukee, WI (BE)
December 8, 1990	Dubuque, IA
December 15, 1990	Milwaukee, WI (BE)
Monthly, First Sat.	Racine, WI
	(except January, July & August)
Monthly, Last Sat.	Tomahawk, WI
	(January thru October only)
Monthly, Third Sat.	Loves Park, IL
	Minnesota tests listed at end of column

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days

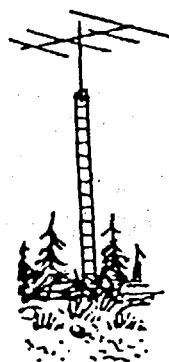
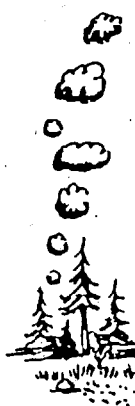
BADGER STATE SMOKE SIGNALS

OFFICERS AND STAFF

CHAIRMAN
Kenneth A. Ebnetter, K9EN
822 Wauona Trail
Portage, Wisconsin 53901
(608) 742-3560

EDITOR
Jim Ronelfanger, K9ZZ
412 1/2 Ash Street
Baraboo, WI 53913

TREASURER
Jim Decker, WB9UQT
P.O. Box 337
Baraboo, Wisconsin 53913



ADDRESS CHANGES AND CORRECTIONS should be sent to Kenneth A. Ebnetter, address above.

EDITORIAL MATERIAL, PHOTOGRAPHS, FEATURE ARTICLES, AND EXCHANGE PAPERS should be sent to Jim Ronelfanger, address above.

DISPLAY ADS or INQUIRIES REGARDING DISPLAY ADS may be directed to Larry Westlund or Kenneth Ebnetter, addresses above.

SUBSCRIPTIONS should be sent, with check or money order (do not send cash), to Jim Decker, address above.

Permission is hereby granted to reprint items from Badger State Smoke Signals, providing credit is given to the original author, publication in which the item first appeared, and to Badger State Smoke Signals. This credit is required. This paper is mailed from Portage WI 53901. This paper is produced by Amateurs for Amateurs. It is all volunteer and non-profit.

EDITORIAL DISCLAIMER

The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or by any other organization.

SUBSCRIPTIONS

1 year	(12 issues)	\$8.50
2 years	(24 issues)	\$16.00
3 years	(36 issues)	\$23.00

before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$4.95 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB - MRAC/VEC

1990 examination dates: Apr. 4; May 2; June 6.

Tests are Wednesday evenings at 7:00 p.m. at Wauwatosa East High School, north 74th and Milwaukee Avenue. Enter through the southmost entrance on 74th Street. Go to room 256 on the 2nd floor. Please arrive promptly so testing can be completed before 10:00 p.m. Bring along your original license and three (3) good photocopies, plus two forms of identification, such as a driver's license, etc. A pen and \$4.75 for the exam fee is also required. WALKINS are welcome. To register in advance on a 15 cent U.S. post card, print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, 1737 North 116th Street, Wauwatosa, WI 53226, or to Ed Seruga, KE9JJ, 3840 South 43rd Street #21, Milwaukee, WI 53220. Telephones: (414) 774-6999 or (414) 545-6299.

BADGER EXAMINERS (BE) - MILWAUKEE

Apr. 21, May 5 (Ozaukee Swapfest), Sep. 15, Oct. 2, Nov. 17, & Dec. 15.

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. to 3:30 p.m. at St. Nicholas Church basement, 5345 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Walk-ins are welcome. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take, your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, W19M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

MANITOWOC, WI (Lakeshore Hamfest)

May 12, 1990

Held at the Lakeshore Hamfest. Contact: John Meyer, N29Z, P.O. Box 146, Kellnersville, WI 54215.

ONALASKA, WI

May 17, 1990

Onalaska Community Center, 515 Quincy St., Onalaska, WI. Limited walk-ins accepted, but greatly prefer letting us know one month in advance. Contact: Rick Williams, KV9U, 524 Troy St., Onalaska WI 54650. (608) 783-8028

STEVENS POINT, WI (ARRL/VEC)

June 17, 1990 (CWRA swapfest)

University Center, UW-Stevens Point.
Morning and afternoon sessions will be offered.
Contact: Art Wysocki, N9BCA, 3356 April Lane, Stevens Point, WI. (715) 344-2984

MENOMONIE, WI (ARRL-VEC)

November 3, 1990

Credit Union Bldg., 444 S. Broadway, Menomonie, WI. Contact: Dr. T. King, WF9I, 108 Shorewood Dr., Menomonie, WI 54751. (715) 235-5757.

EAU CLAIRE, WI

Tests will be given on the following dates: April 14, July 13 and 14, and September 13, 1990

The April and September examinations will be given at the Facilities Management Building, The University of Wisconsin, Eau Claire Campus. The July Examinations will be held in conjunction with our Hamfest at the Eau Claire Junior Fair Grounds.

MADISON WI - ARRL/VEC

April 7

All exams will be held at Fire Station No. 2, 421 Grand Canyon Dr.

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Exams are given at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted. Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

Tomahawk, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No pre-registration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings start at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

DUBUQUE, IOWA (ARRL/VEC)

June 16, September 15, and December 8, 1990

Exams are at 9 a.m. in the Central Fire Station at 9th and Central in Dubuque. Use the basement entrance on 9th Street. Contact Mike Jozefowicz, NSOU, 2735 Hickory Hill, Dubuque, Iowa, telephone 319-582-8563. Talk-ins are on the 147.84/24 and 147.63/03 repeaters.

(Thanks Art Evans, KA9KLZ)

Loves Park, IL

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, 5006 N. Second St., Loves Park, IL 61111. (815) 877-6768.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.



OUR WANT ADS GET RESULTS

WANTED: 2 Meter FM HT. Kenwood 2500, 2600 series or comparable make. Harry Westlund, K9EHJ, 720 Jefferson, Baraboo, WI, 53901. Phone (608) 356-6836 after 2300Z.

FOR SALE: 5 band vertical antenna. Harry Westlund, K9EHJ, 720 Jefferson, Baraboo, WI, 53901. Phone (608) 356-6836 after 2300Z.

WANTED: Mid-1960s vintage Nordmende portable radio. H. Church, W0KXP/9, Box 126, Lebanon, IL 62254. (618) 537-4498 or 6666.

FOR SALE: Complete all-mode packet station consisting of Commodore C-64C computer, 1541 disk drive, MPS-83 printer, 172 color monitor and PK-64 TNC with update for 36,68 bytes receive buffer and 124 bytes transmit buffer storage. Pick-up only. Will demonstrate. \$500.00. Contact Bob Knutson, W9BUG at (715) 834-8530.

FOR SALE: 2M repeater. New REP-100. Built and aligned to comm. specs. Active on 145.470 in Fall Creek. Includes controller, xtal oven, ID, autopatch, amplifier, 50 amp. supply, d.c. backup, duplexer, etc. All in Motorola 19" rack. Will sell with or without 66' free standing Rohn HBX. Call Dave, K9VZV, (715) 832-6433

WANTED: ICOM IC-202 2-meter SSB Portable Transceiver. Don Buska, N900, (414) 654-0072.

FOR SALE OR TRADE: Leaving packet for CW and have the following TNCs available: MFJ 1274 and PK232 (10/89 EPROMS)--both purchased new several months ago. Consider trade or other deal with model Ten-Tec Argosy, Omni or Paragon. Peter D. Bayne, WK9K, P.O. Box 71071, Milwaukee, WI 53211-7171.

FOR SALE: TS530S Kenwood. Very nice with manuals. TA31 antenna. 10-15-20 meters, an excellent novice antenna. Millard Christianson, 424 W. Pine St., Sturgeon Bay, WI 54235. (414) 743-1310.

WANTED: Collins 30L1 amplifier. Collins KWM2. Must be in nice condition. Millard Christianson, 424 W. Pine St., Sturgeon Bay, WI 54235. (414) 743-1310.

WANTED: Old Ham Gear. Transmitters and receivers. Collins, Johnson, etc. Also good homebrew units. N9IER, Scott. (414) 246-8765

WANTED: HF rig (TS-830, 430, etc.), Bencher iambic paddle. Send description and price to KA9FOX, Scott Neader, 629 King St., La Crosse, WI 54601.

Wisconsin Nets Association Ltd.

WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Manager
BWN	Yes	3984	1100	0600	KC9CJ
BEN	Yes	3985	1700	1200	WA9W
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	KA9FVX
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTN	Yes	34/94	2330	1830	N59Q
6:30 Net	No	01/61	2330	1830	KA9OMC
Gr Bay	No	72/12	0145	2045	WB9NRK
			Thu	Wed	
RACES	No	3993.5	1715	1215	WC9AAG
			USB Tue and Thu		
RACES	No	3993.5	1300	0800	WA9OAY
			LSB Sunday		

Section Manager's

notes

Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221



Fox Cities ARC has selected WD9FLJ as Ham of the Year for his help with their Field Day, EAA Fly-In, ARES, hamfest, and many other activities. The club has given 432 amateur exams in the past four years.

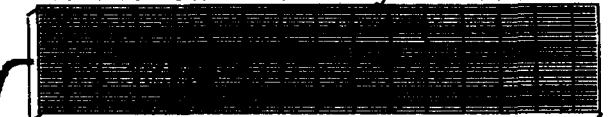
West Allis RAC made WB9JYR an honorary member, and replaced their repeater controller.

Wisconsin Valley RA has new club canvas banner that members display when helping the community, to promote Amateur Radio and their volunteer work with kayak races, triathlon, winter games, field day, and communications for skiers and spectators.

Exams will be held on May 2nd beginning at 7:00 p.m. in the Wauwatosa East High School by the MRAC Team; contact W9JK or KE9JJ.

The Ozaukee RC swapfest is May 5th starting at 8:00 a.m. at the Circle B Recreation Center, Highway 60 and County I, north of Cedarburg, with tests by Badger Examiners.

Let the Sun Power your Station!



The \$289.95 Bullet-Tested QRV Solar Power Supply keeps your repeater on the air 'round the clock or powers your 100w HF station 60 hrs a month. Control circuit speeds charge, protects gel cells & sealed batteries. Fully assembled, QRV, portable. Easily expanded.

Add \$10 S&H Air Mail Info \$1
(801)373-8425 AntennasWest Box 50062-SS Provo UT 84605

South-Central Wisconsin Severe Weather Net Readies for 1990

Another winter is drawing to a close, and our thoughts must unfortunately turn to the impending season of severe weather. As coordinator of South-Central Wisconsin SkyWarn, I would like to briefly discuss operation of this year's net.

As in the past, the net will activate on the 146.28/.88 repeater. This machine occupies tower space graciously provided by WILV Radio, high atop the Baraboo bluffs. If the Baraboo machine goes down during a net, operations will transfer to the 147.75/.15 repeater located on the WMTV tower in Madison.

All hams are encouraged to monitor the net during severe weather, and report local weather activity to the net control. Reportable activity includes:

- * wind exceeding 50 mph (as a rule of thumb, this is when small branches and limbs begin to break from trees),
- * hail 0.75" diameter or larger,
- * obvious funnels and tornado touchdowns,
- * very heavy rain, and
- * incessant lightning.

When reporting local activity, hams should initially identify themselves with their entire call. In the interest of efficiency, the net control may then respond with only the suffix, e.g. "XH, go ahead" or "X-ray Hotel, go ahead." Reporting hams should also give their location relative to a well-known geographic landmark, e.g. "I-90 at the Wisconsin River."

Activity reported to the net control is simultaneously monitored by a liaison located at the National Weather Service (NWS) office in Madison. The liaison apprises NWS radar operators of these surface reports, allowing more precise interpretation of the radar images. In return, the liaison informs the net of rapidly changing weather conditions and statements provided by NWS.

The net will activate under either of two status levels during severe weather.

FULL ALERT: Activation under full alert status will occur whenever a severe thunderstorm or tornado is issued for any portion of south-central Wisconsin. During a full alert activation, only traffic related to the severe weather or other emergency traffic will be allowed, and all communication will pass through the net control.

STANDBY: Activation under a standby status may occur when severe weather is imminent, but no warnings have yet been issued. While in stand-by status, the net control will allow routine informal traffic; however, stations should pause frequently to allow the net control to inform the net of sudden changes in weather conditions.

I would like to thank those who have participated in the weather net in past years. The purpose of the net is not only to provide severe weather information to the NWS, but also to the recreationists, travelers, and residents who monitor the net. It is only through reports by those monitoring the net that it can provide this useful information.

I will continue the informal nets this season. Beginning Monday, April 2 at 9:00 p.m., and continuing each subsequent Monday evening through September, I will conduct an informal informational net on the 146.28/.88 repeater. The purposes will be to inform participants about the weather net, correct problems which crop up during activation of formal nets, and provide a forum for discussion concerning topics of other interest to net participants. See you on the air. 73 and 88.

- John Offerdahl, KC9XH
Emergency Coordinator, South Central Wisconsin SkyWarn Net
Verona, WI 53593

New ORC officers are Pres. WJ90, V. Pres. WB9OHY, Sec. WB9RQR, Treas. KA9-DDN.

The Tri-County ARC swapfest is on May 12th starting at 8:00 a.m. at the Jefferson County Fairgrounds, Highway 18 West near Jefferson with talkin on 145.49 MHz. Exams at 9:00 a.m. given by Watertown ARC.

ManCoRad RC will hold Lakeshore Hamfest and Computer Swapfest on May 12th starting at 8:00 a.m. at the Manitowoc County Expo, Highways 42, 151, and I-43 on County Highway R. Amateur exams will be available.

May 17th, exams will be held at the Onalaska Community Center, info from KV9U.

Rock River RC has monthly member profile and photo in their newsletter.

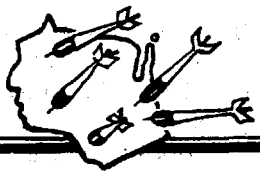
Four Lakes ARC has 157 members, and recently presented W9ZM with Lifetime Achievement Award for his DX activities.

Sorry to report Silent Key W9EAN, formerly of Amateur Electronic Supply.

Southeast Wisconsin now uses 145.25 MHz as an ARES repeater.

Ads Needed

The U.S. Government isn't the only deficit-spender; since BSSS has no ad salesperson, and since I can't sell ads because I have no telephone, our outgo is greatly exceeding our income. If you have a business, perhaps you could take an ad, or maybe you could sell a few ads (a small commission is paid). Our rate schedule is published toward the back of this issue. - K9ZZ



HERE and THERE

FCC ISSUED CALL SIGN UPDATE: The following is a list of most recently issued FCC call signs (March 1):

Dist	Group A Extra	Group B Adv	Group C Tec/Gen	Group D Novice
Ø	WZØY	KFØIM	NØLPK	KBØGAM
1	WD1N	KC1TX	N1HJS	KA1VFZ
2	WW2Q	KE2SE	N2KJU	KB2JOW
3	NY3R	KD3RF	N3HWQ	KA3VVM
4	AB4TW	KN4EZ	N4YHA	KC4OYY
5	AA5QS	KI5DF	N5QBM	KB5LUZ
6	AA6UH	KK6HJ	N6YBR	KC6JCV
7	AA7DO	KG7AX	N7OIZ	KB7JVU
8	WZ8W	KF8ES	N8LXN	KB8JFB
9	WO9Z	KE9VF	N9JIN	KB9EDT
GU	KH2M	AH2CF	KH2EI	WH2AMK
HI	**	AH6KH	NH6WB	WH6CGU
AK	**	AL7LX	NL7TN	WL7BXE
USVI	NP2F	KP2BT	NP2DP	WP2AHA
PR	**	KP4QN	WP4XK	WP4IUH

** indicates that all 2 x 1 call signs have been assigned in those areas.

The N-prefixed Group C (1 x 3) call sign blocks for the fourth and sixth call districts have nearly all been assigned. After N4ZZZ and N6ZZZ have been issued, FCC will begin assigning calls from the Group D (2 x 3) call sign block.

- The ARRL Letter, 03/16/90

NOMINATIONS SOUGHT FOR THE MAXIM MEMORIAL AWARD: Now is the time to find that special young amateur

who is setting a fine example of public service, education, and goodwill through his or her Amateur Radio efforts. The Hiram Percy Maxim Memorial Award is given annually to the licensed radio amateur under the age of 21 whose accomplishments and contributions are the most exemplary nature within the framework of Amateur Radio activities, including, but not limited to:

- * Participation or leadership in organizational affairs at the local or national level,
- * Technical achievement,
- * Operating record,
- * Recruitment and training of new amateurs, and
- * Public relations activities.

In keeping with the tradition of the award when it was first established in 1936, formal nominations are made by ARRL Section Managers. Suggestions and supporting information, including the endorsement of ARRL affiliated clubs and elected or appointed League officials, should be submitted with the nomination. An award panel will review the nominations and select the winner. The winner will receive a \$1000 cash award, an engraved plaque, and travel and accommodation expenses to attend an ARRL convention, where the formal presentation will be made.

- The ARRL Letter, 03/16/90

IS THERE AN OBS IN THE HOUSE? "There is still a need to read bulletins on the air," says our ARRL Bulletin Manager, Carl Plotz, WB9JSW. We can use more help on the 75-meter traffic nets, local VHF and UHF repeaters, and HF rag-chew nets.

Carl notes that even packet radio bulletin boards in his area could use some more club announcements and amateur radio news. If you would like to find out more about helping by being a volunteer Official Bulletin Station, please contact Carl at 4429 Sherman Road, Oshkosh, WI 54901.

- Richard Regent, K9GDF

CONGRATULATIONS TO JOHN FRANK, WB9TQG, who recently passed the 20 words per minute code test for his Amateur Extra class license; he passed the Extra Class written exam some time ago.

John had taken the code test several times, but had not passed because of a hearing loss caused by an infection when he was younger and because of being exposed to high noise levels at a prior job; he also has tinnitus, which is a ringing in the ears (tinnitus can be other sounds, too, such as a roaring sound. It can be very distracting); passing the code test in spite of those problems made the victory extra sweet.

John writes "John's Junk Box" and "Repeater Profiles" for this newspaper. He will not be changing his call sign. Again, congrats, John!

John's wife, La Vonne, AC9J, also is an Extra Class licensee.

- Editor

BSSS NEEDS A PRINT WHEEL for a Radio Shack DWP-210 daisy wheel printer. They are no longer available from Radio Shack and, unfortunately, it's the wheel which printed this column which is used for every issue of BSSS. It is a Venezia PS (proportional space) 96 character wheel, and I believe it's made by C. Itoh. This wheel has been used for 6 years, and it has some nicks which are getting worse. If you know a source, please drop me a note.

- K9ZZ

GOING TO THE MADISON SWAPFEST April 8? If you do, please look us up at the Badger State Smoke Signals table! I believe we will be in the vicinity of the **MARA** table. At least part of the BSSS staff will be there, and we'll be glad to have a chance to chat with you - and we'll also be glad to have you subscribe or renew your sub, too!

- K9ZZ

RACINE AREA NETS: Several nets are held each week. They are:

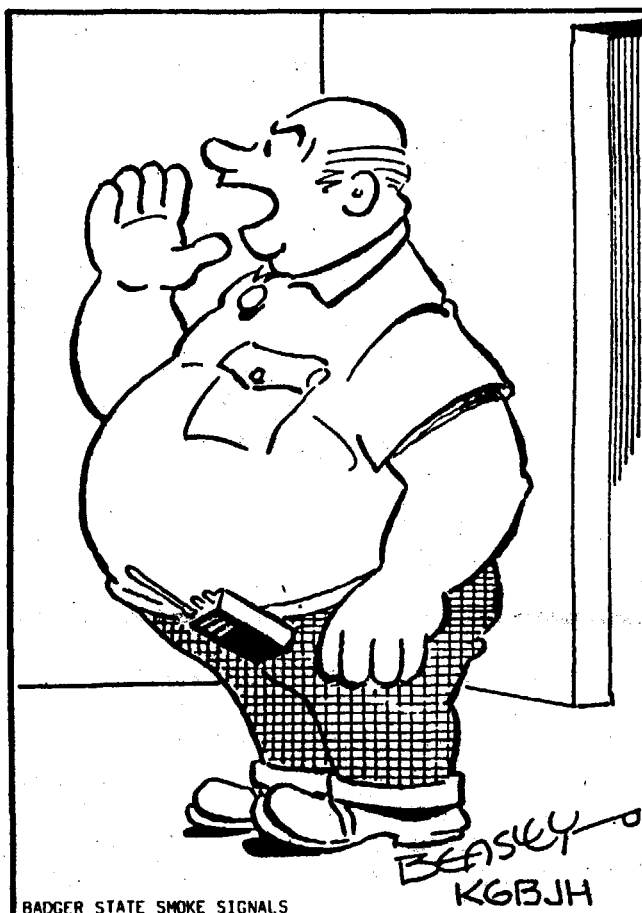
SkyWarn practice - Wednesdays - 7 p.m. - 147.27 (+ offset)

Ten-Ten - Sunday - 3 p.m. - 28.555 MHz

Ten-Ten - Monday - 8 p.m. - 28.455 MHz

- Dave Voss, WB9USI

WE NEED YOU as a BSSS subscriber. please use the blank below!



BADGER STATE SMOKE SIGNALS

ALL RIGHT, MURIEL, WHERE DID YOU HIDE MY LITTLE HANDHELD THIS TIME?

BADGER STATE Smoke Signals For Radio Amateurs • By Radio Amateurs

1 year (12 issues) \$8.50
2 years (24 issues) \$16.00 (save \$1.00)
3 years (36 issues) \$23.00 (save \$2.50)

- REGULAR INDIVIDUAL SUBSCRIPTION RATES -
Please make checks or money orders payable to
Badger State Smoke Signals.

Please send check or money order to
Jim Decker, WB9UQT, Treasurer, P.O.
Box 337, Baraboo, WI 53913-0337.

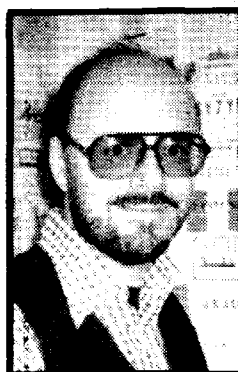
PLEASE PRINT

9004

Name: _____ Call (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐ 1 year ☐ 2 years ☐ 3 years ☐ new ☐ renewal



John's Junk Box

By John W. Frank, WB9TQG
P. O. Box 5113
Madison, WI 53705

Back in the dark ages, we didn't have picofarads as a unit of capacitance. We had Farads, which were enormous. We had microfarads, which were medium sized. Finally, we had micromicrofarads, which (as the name implies) were smaller than microscopic. Engineers, technicians, and hobbyists all around the world kept losing their micromicrofarads because they were so small. Luckily, the picofarad was discovered in 1967.

Those of us who use equipment designed or built before 1967 may sometimes encounter cryptic references to micro-

microfarads. Anyone studying the history of electronics may also find antiquated circuits using micromicrofarads. However, there is no need for despair. The micromicrofarad can be described mathematically, and the conversion from micromicrofarads to picofarads can be accomplished with the simple nomograph shown below.

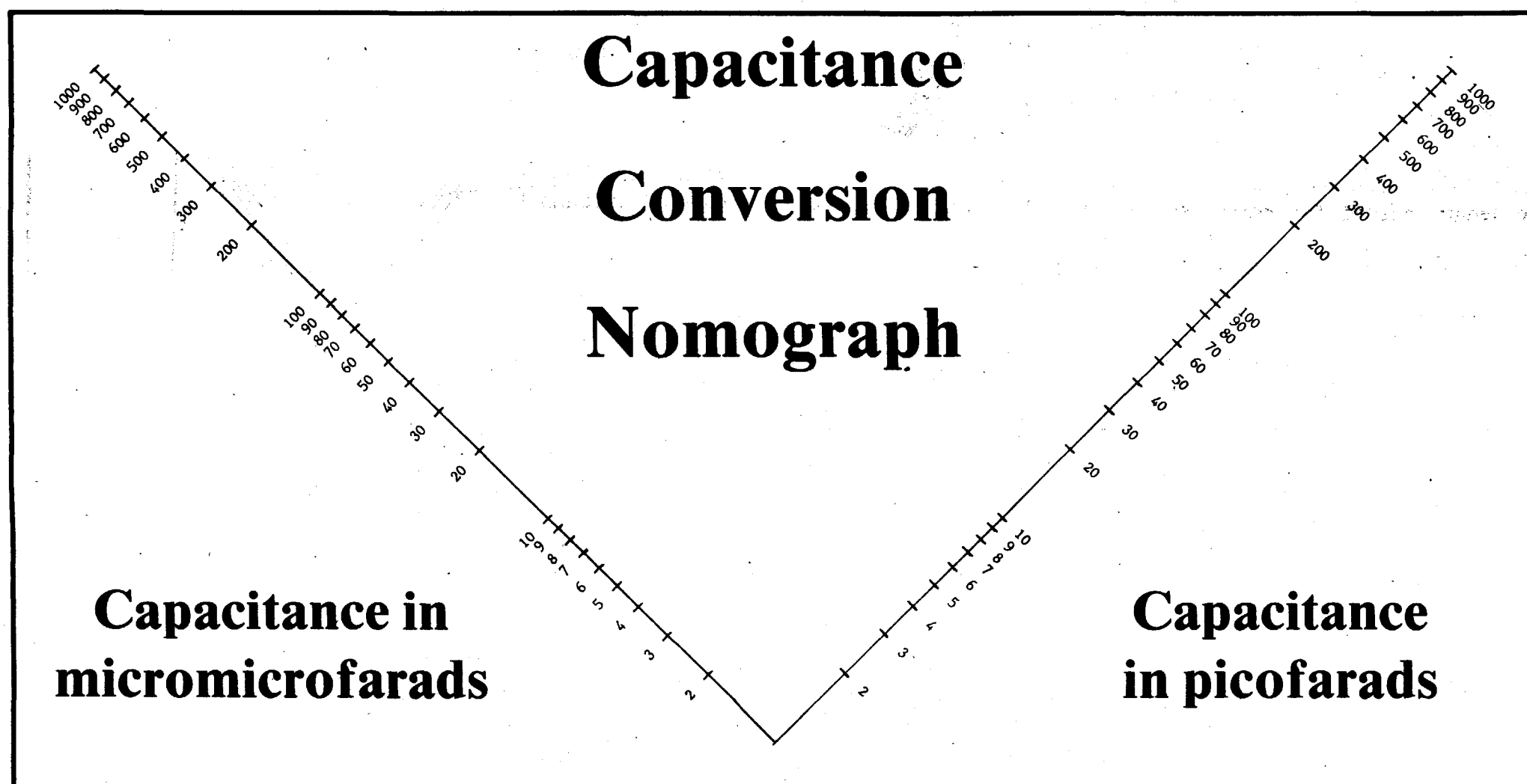
This nomograph was developed using a Sencore Z-meter and a Heathkit model IB-5281 RLC bridge. Old capacitors (manufactured before 1967) were carefully compared to new capacitors (manufactured after 1980). The resulting data was analyzed and corrected to compensate for variations in the electron charge to mass ratio for different types of dielectrics. All the test capacitors, both old and new, were then retested, using a parametric vector detector. The result of all this intense effort is the nomograph shown here.

To convert from micromicrofarads to picofarads, place the pointy end of a drawing compass at the vertex of the an-

gle formed by the two scales. Place the pencil end of the compass on the left scale, at the value you are dealing with, and draw an arc over to the scale on the right. Read the value of the capacitor in picofarads at the point where the arc intersects with the scale. To convert from picofarads to micromicrofarads, start the arc on the scale labeled picofarads, draw the arc from right to left, and read the capacitance in micromicrofarads where the arc intersects with the left side scale.

Readers who are interested in learning more about conversion between different units are encouraged to read Reference Data for Radio Engineers, sixth edition, (©1979, Howard W. Sams & Co., Inc.). This fine book devotes its entire third chapter to units, constants, and conversion factors. The relationship between micromicrofarads and picofarads is also described on page 24 of the 44th edition of The Radio Amateur's Handbook (©1967, ARRL).

Look out for stray capacitance, and don't forget to smile. It makes people wonder what you've been up to.



QuickKit™ G5RV & All-Band Loop Kits

- Fast & Easy to Build
 - Failsafe visual instructions
 - No measuring or cutting
 - Everything included
 - Finish antenna in minutes
 - Quality Components
 - Presoldered Coax Fittings
 - Kinkproof Superflex wire
 - Fully insulated, wx sealed, no-corrode, low noise design
 - Fastest Antennas in the West
- Antennas West**
(801) 373-8425
- Full Size G5RV dipole coverage 80-10 \$34.95
 - Half Size G5RV dipole coverage 40-10 \$24.95
 - Quarter Size G5RV dipole coverage 20-10 \$19.95
 - Marconi Adapter kit \$ 4.95
 - QuickLoops: quad, diamond, delta, horiz. vert. sloping
 - 160-10m (570') \$99.95
 - 80-10m (290') \$79.95
 - 40-10m (142') \$64.95
 - 200' Dacron 250# line \$11.95
- Box 50062-SS, Provo, UT 84605

QCWA Chapter 55 News

New members of Wisconsin Chapter 55 of the Quarter Century Wireless Association are: Roger Doehr, W9DLY; Jack Klein, W9YOA; Benjamin Ball, K4KVP; Delbert Clark, KA9ZMK; Frederick Kohn, WA9-OMC; and James Burns, K9ERO.

Chapter 55 is looking for new members - why not join and meet your friends?

Members: has your membership expired? Please renew.

The Spring Banquet/Meeting will be in Fond du Lac at "The Club," 977 W. Scott St. Listen to the Sunday morning net (3985 KHz at 8:30 a.m. local time) for details.

The fall meeting will probably be in the southern part of the state; details later. An auction usually follows the meeting, and there are usually ladies' activities planned.

Sorry to report Silent Key Al Hennig, W9ESJ.
- Roy Pedersen, K9FHI, Secretary

WARC Bands for the Apartment Dweller Antenna

By Harv Hamer, K9YHO
1109 12th Street, Apt. 6
Baraboo, WI 53913

Since the original "Apartment Dweller" antenna was designed (see Badger State Smoke Signals, November, 1989), I obtained a rig for the WARC bands; of course, I also modified the antenna to work on those bands (30, 17, and 12 meters). The modified parts of the antenna are indicated by the large arrows on the illustration. Here are the modifications:

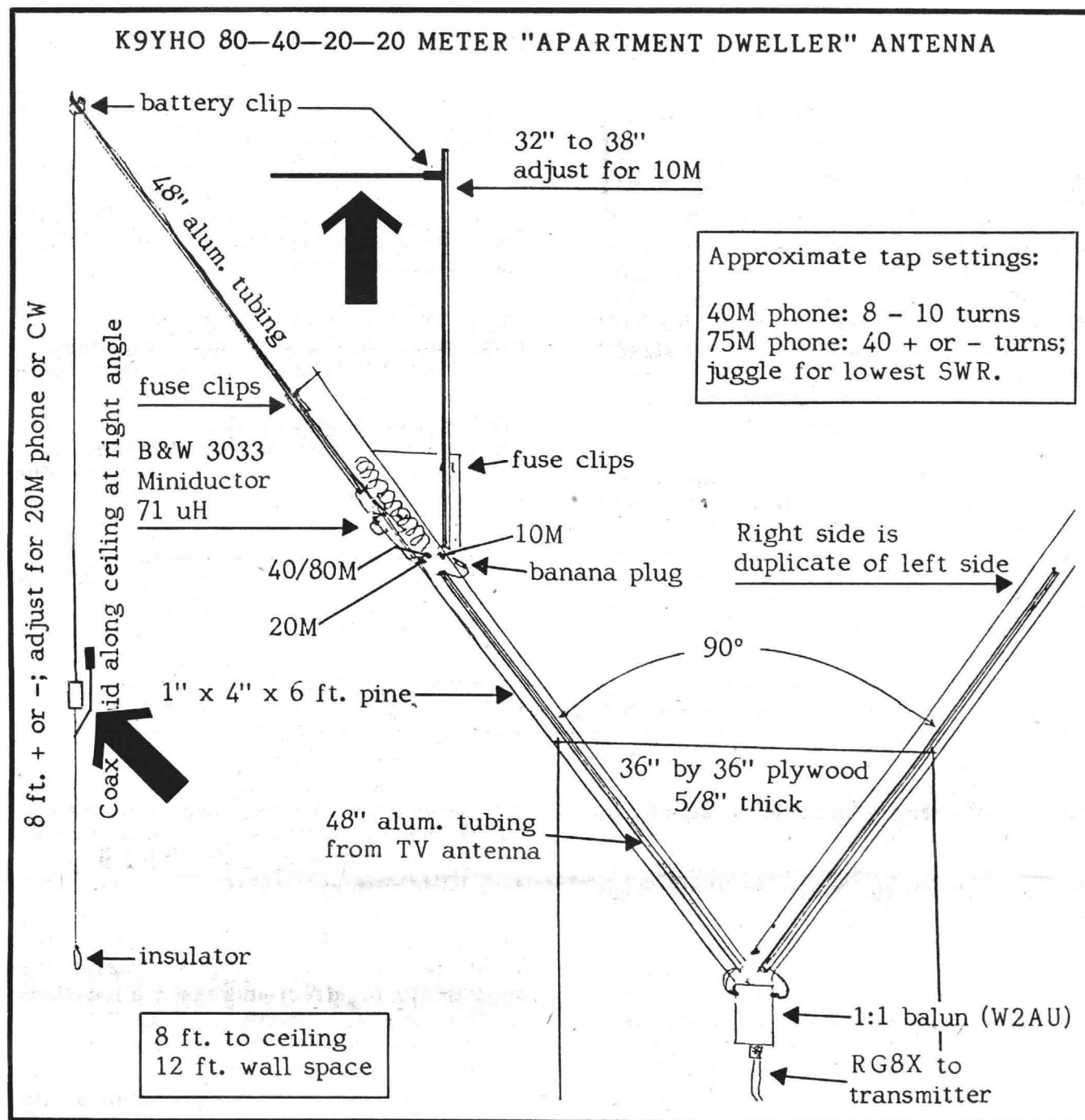
30 METERS: Set the plugs on the loading coil assembly to 40 meters. Then, move the 40 meter taps down the coil one turn at a time, until resonance on 30 meters is obtained.

17 METERS: Break the 8-foot legs at about 36" from the outer ends, and insert insulators. This produces a dipole. Adjust for resonance by adjusting the length of the inner part of the 8-foot legs. Connect a short pigtail lead with an alligator clip so that the insulator may be bridged with the lead; that restores the antenna to operation on the other bands.

12 METERS: Set the plugs on the loading coil assembly for 10 meters. 12 meter operation is accomplished by clipping two 16 inch #12 copper wires near the tops of the 10 meter vertical elements; this adds the length needed for resonance on 12 meters. Use battery clips on the #12 wires. Adjust for resonance by sliding the wires up or down on the 10 meter elements. In my case, about 6" from the tops of the 10 meter elements works fine.

Tuning the original antenna and these modifications can be done using a dip meter, a noise bridge, or an SWR bridge.

Hope these mods will get you on the WARC bands.



New Products

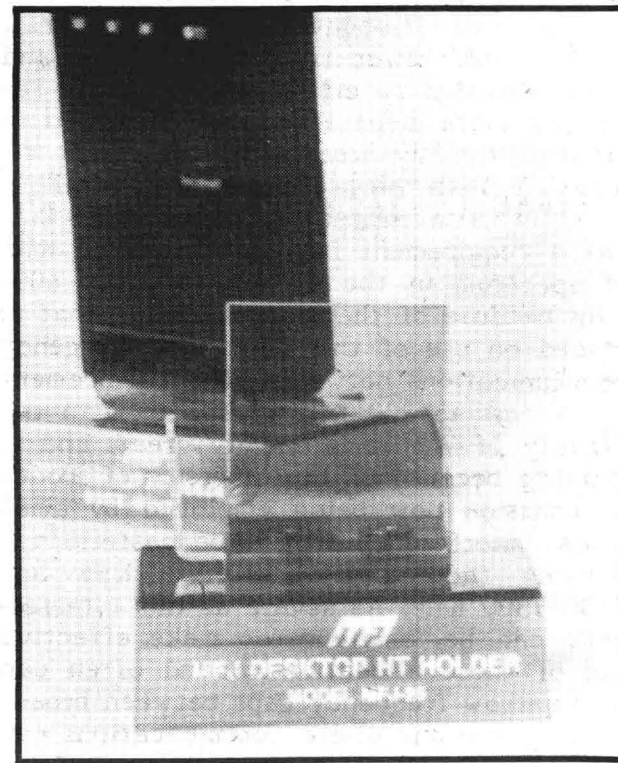
MFJ MOBILE AND DESKTOP HANDHELD HOLDERS

MFJ Enterprises, Inc. announces the release of new Mobile and Desktop Handheld Holders for only \$9.95 each.

These handy new MFJ HT holders help you make sure your handheld stays where you put it - in your car or on a crowded table or desk. MFJ-24 (pictured in center column) has a strip of durable plastic that bends to fit snugly over your car door, front seat, or other area. MFJ-25 (right column) stands on your table or desktop.

They're an economical way to help guard against dropping your expensive HT. Both units provide for both large and small HTs.

For more information, contact any MFJ dealer, or order toll-free from MFJ Enterprises, Inc., (800) 647-1800.



ARRL Comments in FCC WARC-92 Inquiry

The American Radio Relay League (ARRL) has filed its comments in response to a Federal Communications Commission (FCC) inquiry in general docket 89-554. FCC sought information to assist in addressing the allocation issues likely to be raised at the 1992 International Telecommunication Union (ITU) World Administrative Radio Conference (WARC). In its introduction, ARRL said that it recognizes the significance of the inquiry and"stands ready to participate fully in the process leading to the US position at WARC-92."

A primary concern for amateurs at the upcoming WARC is the issues that deal with spectrum allocations for HF Broadcasting. FCC asked for comments on the projected needs of the HF broadcasting service. The League responded, saying "There have been dramatic changes in the world since HFBC-87 (WARC for the Planning of the HF Bands Allocated to the Broadcasting Service. Second Session. 1987.) These changes are relevant to the projected needs for additional HF broadcasting service allocations." Some of these "dramatic" changes include: a significant reduction in jamming; easing of restrictions in certain countries which formerly discouraged pluralistic views in their countries; and increasing delivery of information and other material to target audiences by new communications technologies. The FCC also asked whether HF Broadcasting allocations have to be exclusive and, if so, should these allocations be regional or worldwide. To this the ARRL responded, "The HF broadcasting service uses high power transmitters and directional antenna arrays to deliver high field intensities capable of overcoming the insensitivity of inexpensive receivers with built in antennas. In contrast, the amateur... service uses lower transmitter power and more sensitive receiving systems. As a result of these disparate power levels, it is difficult for any other service to share allocations with the broadcasting service."

"The amateur service in Region 2.... has a requirement for access to 500 KHz of spectrum in the vicinity of 3500-4000 KHz because of the great reliance that is placed on use of this band for emergency communications networks. The requirement for access to 300 KHz of spectrum in the vicinity of 7 MHz is equally great, and is growing because of the diversity of modes of emission now being employed by amateurs. Interference from broadcasters is a limiting factor at 3900-4000 KHz and 7100-7300 KHz. As severe as this interference can be, amateurs do make effective use of these allocations.... and often can find narrow frequency gaps between broadcasting stations where communications can be conducted even in the presence of in-

terference. Loss of access to any part of these allocations would deal a severe blow to amateur disaster communications capabilities in Region 2. Those capabilities are now substantially lacking in Regions 1 and 3 in the absence of an adequate 7 MHz amateur allocation."

Commenting on other questions regarding frequency allocations affecting amateur bands in the UHF and SHF regions, ARRL noted "There are three amateur service bands within the 0.5-3 GHz range of interest for expansion of mobile-satellite and (other services), namely 902-928, 1240-1300, and 2300-2310/2390-2450 MHz." The League commented that none of these bands are suitable for additional sharing, as they are already being shared by Industrial, Scientific, Medical (ISM) and government radiolocation services, and at intervals throughout the remaining spectrum to 300 GHz.

With regard to proposed new space services above 20 GHz, the League commented that the needs of the amateur and amateur satellite services should not be overlooked when allocations are made for new services. Currently, there are amateur allocations at 24-24.05 GHz on a primary basis, and at 24.05-24.25 GHz on a secondary basis with radiolocation services.

The ARRL also commented "....Should the agenda for the conference permit, the US should as a matter of policy pursue the opportunity to effect increased allocations to the amateur services...." including a new shared allocation with a bandwidth of 50-100 KHz in the vicinity of 5 MHz; an expansion of the amateur allocations at 10, 18 and 24 MHz; and a 50 KHz expansion of the allocation near 14.350 MHz. In addition, the League requested that the amateur service allocation in Region 2 at 7.1-7.3 MHz now subject to harmful interference from high-power broadcast stations, be to the amateur service worldwide. ARRL said that it would be ready to provide further justification at an appropriate time.

In its concluding comments, the ARRL said "In 1988, the United States Congress adopted.... the Federal Communications Authorization Act of 1988. Among other things, this law stated the sense of Congress that.... Government agencies shall take into account the valuable contributions made by amateur radio operators when considering actions affecting the Amateur Radio Service.... this legislation made it clear that the intention of Congress.... was to urge government agencies that have such jurisdiction to avoid actions which would reduce amateur service frequency allocations. The League urges that this same goal should be adopted by the Commission in its preparatory efforts for WARC-92." - The ARRL Letter, 02/27/90

New Products



1990 MFJ AMATEUR RADIO/SHORTWAVE LISTENING ACCESSORIES CATALOG

MFJ Enterprises, Inc., the world's leading manufacturer of Amateur Radio accessories, announces the release of the new 1990 Amateur Radio/SWL Accessories catalogue.

It's free! Simply write or call for your copy.

This brand new 16-page catalog includes the world's leading line of antenna tuners, Portable Transmitting Antenna, SWR/wattmeters, coax switches, dummy loads, clocks, keyers, memory keyers, Antenna Bridge, RX Noise Bridge, Multiple DC Power Outlet, RFI Free Choke Kit, Artificial RF Ground, handheld accessories (speaker/mikes, antennas, SWR/wattmeters, and more), SWL accessories (tuners, indoor and outdoor active antennas, preamplifiers, and more), phone patch, books, Ham software for IBM, Macintosh, and Commodore compatible computers, packet radio units, Multi-Mode Data Controller, "Picture Perfect" Video Digitizer, and more.

For your copy, call toll-free at (800) 647-1800; FAX: (601) 323-6551; Telex: 53 4590 MFJSTKV; or in Mississippi, call (601) 323-5869; or write MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

- MFJ news release

The Communicator

News of Greater Taylor County Area Amateur Radio Events and Activities

Mike Schoenfuss, N9GHZ, Editor

MONTHLY CLUB MEETING - TAYLOR COUNTY AREA AMATEUR RADIO CLUB

Thursday, April 12. Location: Emergency Government meeting room, basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Streets, Medford, Wisconsin. The meeting starts at 7 p.m.

AGENDA AND PROGRAM FOR APRIL MEETING

Progress reports on the W9QHI/R repeater and the N9GHZ-1 (WIMED) packet node will be presented. Also, further discussion on the major project involving Amateur Radio with the White Pines District Spring Boy Scout Camporee, to be held in Gilman, Wisconsin, in May, 1990. Discussion of the future of Amateur Radio license preparation courses in the Taylor County area. Updating of the Directory of Taylor County Area Amateur Radio Operators. Following the business meeting, a videotape(s) on severe weather spotting will be shown, if time permits, and if N9GHZ is able to attend the meeting and bring the tapes.

CLUB NEWS

Attendance at the March meeting was as follows: N9GHZ, WD9ITI, KA9UXN, WD9FWP, KE9LX, KA9WDX, N9IFA, KB9BLV, N9IDW, W9LEE, and Roland Sacho, Taylor County Director of Emergency Government.

The treasurer's report by WD9FWP indicated a balance of \$976.34 in the treasury.

Roland Sacho talked about the status of the 911 system in Taylor County, where it's at now, and plans for possible future enhancements.

N9GHZ announced that he had been in touch with Jerry Williams from Abbotsford High School, and that there had tentatively been plans to hold a 1990 Hi-Tech Fair at the high school, with dates of April 27 and 28, but that it had since been cancelled due the lack of a "main attraction" for the fair; there will be no opportunity to set up an Amateur Radio display.

Adam Wsul, N9HQE, and his XYL Agnes, KB9BGN, have moved from Lublin to Eau Claire. Their new address is 4502 Speros Lane, Apt. 1, Eau Claire, WI 54701.

There are at least three new ham radio operators in the greater Taylor County area. Welcome to N6CLY, rural Thorp; KE9VE (?), Wayne, located between Gilman and Stanley; and Robert Wilcken, KA9GBG, Box 134, Thorp, WI 54771. Bob presently

holds a Novice Class license. He's 53 years old, and has been an Amateur Radio operator for the past 6 years. He moved here from Iowa, and is the new minister at St. Paul's Lutheran Church in Thorp. His home phone number is 669-5424. Not much is known yet about the other two new hams in the area, but we'll pass it along as soon as it's available. All the new hams will receive the latest roster of area Amateur Radio operators, a sample newsletter, and an invitation to attend our club meetings and/or join the club.

KA9UXN and N9GHZ have both received QSLs from their contacts with U4MIR, aboard the Soviet space station MIR, from Spring of last year.

Congratulations to the 1990 officers of the Taylor County Area Amateur Radio Club, elected at the February meeting:

Tom Hrdina, N9GEN, Medford, President,

Bernie Jari, KA9WDX, Medford, Vice-President,

Rolland Walty, W9LEE, Westboro, Secretary, and

Ernie Mehner, WD9FWP, Dorchester, Treasurer.

W9LEE will also be taking over as editor of this newsletter, effective with the May, 1990 issue.

TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE NEWS

Mike Schoenfuss, N9GHZ,
Taylor/Clark County
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net, held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/-147.15). If the repeater is down, or not functioning properly, alternate frequencies are 147.15 MHz simplex or 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

I would like to announce that, at least for the time being, I will retain my positions of Emergency Coordinator for both Taylor and Clark Counties. However, I would eventually like to relinquish these positions to someone else who meets the required qualifications, and who is a more immediate resident of those counties.

In moving toward that goal, I am pleased to announce the appointment of Jim Sahr, N9IFA, of Lublin, to the position of Assistant Emergency Coordinator (AEC) for Taylor County. Congratulations, Jim!

As a former Abbotsford resident, I will continue to remain the primary contact person for Amateur Radio communications

for the annual Abbotsford Christmas Parade, at least for the time being. The same will apply to the annual Tombstone Pizza Fun Run. Eventually these responsibilities would also be turned over to new Emergency Coordinator(s) and their assistant(s).

WEATHER SPOTTING CLASS: N9GHZ and KB9BLV attended the training session for ham radio operators and others interested in acting as severe weather spotters, on March 12th at the Marathon County Courthouse in Wausau. Speakers were KC9NW (Marathon County ARES Emergency Coordinator), and Elroy Jaegler, the Chief Meteorologist for the National Weather Service in Wisconsin.

A reminder to all that we will try to have some severe weather spotting training films available at the April meeting, and all are encouraged to attend. The severe storm season is already upon us.

TORNADO AWARENESS WEEK will be the first week in April and, on Tuesday, April 5th, Taylor County, including the Office of Emergency Government, will be testing its warning system, including sirens, cable TV system override, Emergency Government monitor receivers, etc. We will also try to have a simulated ARES/SKYWARN net on that day, coinciding with the Taylor County test. The net will, if at all possible, be conducted from the Emergency Government Operations Center at the Courthouse, which will enable us to test the 2-meter radios located there; if not possible, the net can be called up from another location (i.e. the residence of an area Amateur Radio operator).

A simulated tornado watch will be issued at 12:30 p.m., at which time a simulated Stand-By SKYWARN net will be activated. At 1:15 p.m., a simulated tornado warning will be issued, at which time the Stand-By SKYWARN net will be upgraded to an Active SKYWARN net. At 1:30 p.m., the all-clear will be given, at which time the SKYWARN net will be secured and deactivated. At this time, it is anticipated that N9IDW will be acting as net control station for this simulated net, although a last minute change might be required, depending on circumstances. All Taylor County area Amateur Radio operators are encouraged to try to check into the net sometime between 12:30 p.m. and 1:30 p.m. It is NOT necessary or required that you remain checked into the net from the time you first check in until the net is secured at 1:30 p.m. so, if you are at work or for some other reason can't stay by the radio, you can still participate. The only thing

we ask is that you check out with the net control station before leaving the air.

THE ANNUAL GOVERNOR'S CONFERENCE ON EMERGENCY GOVERNMENT will be held on April 17th at Olympia Village near Oconomowoc, WI. Once again, there will be Amateur Radio operations from the conference site, including HF (frequency or frequencies unknown), VHF (???? most likely two meters), and packet radio (???? most likely two meters). Exact frequencies are not known at this time, but packet will most likely be on 145.01 MHz. The callsign being used is also unknown, but may possibly be KC9CJ. If you're in the area, you're invited to stop in and introduce yourself.

They will most likely again be keeping track of all contacts made around the state on a big map, for conference attendees to see. This helps to illustrate the capabilities of Amateur Radio to various public officials. I would also like to encourage ALL Taylor County area Amateur Radio operators to check in with the Amateur Radio station at the conference on that date. If you use HF or packet, you should be able to make a direct contact with them. For those of you unable to go direct, we will attempt to make some arrangements to have an area Amateur Radio operator take check-ins for the conference on the Medford 2-meter repeater, and relay the check-ins down to Oconomowoc via either HF or packet. If you don't hear someone calling for check-ins on the Medford repeater on the day of the conference, try one of the other area repeaters, as they may possibly be doing the same thing.

144.67/145.27 DORCHESTER REPEATER (WA9ZCO/R)

Due to his recent move to Wausau, Wis., N9GHZ made the decision to sell his ACC Model RC-850 repeater controller, which has been in use on the 145.27 repeater for about the past two years. The RC-850 was sold to the Northeast Wisconsin Radio League, in Green Bay, Wis., for \$2000.00. The 145.27 repeater is now off the air, at least temporarily. It may or may not be reactivated and, if it is, it may or may not have autopatch capabilities and privileges again. All inquiries concerning this repeater should be directed to WA9ZCO.

Also, as a result of N9GHZ's recent relocation, the RAIN Dial-Up Service weekly Amateur Radio news bulletins have been terminated. There is a possibility that they may be heard again at some point in the future, on a Wausau-area 2-meter repeater.

147.75/147.15 MEDFORD REPEATER (W9QHL/R)

KE9LX is investigating options for the purchase of a repeater controller. A meeting was to be held on March 12th with county officials to discuss the matter.

W9LEE, KE9LX, and possibly other club members and officers, were to be in attendance. The goal is to have the county and/or NTC provide us with a phone line for use with autopatch and 911 calls, and the club would furnish the necessary repeater hardware (i.e. controller or autopatch). Features being looked into are autopatch, reverse patch, 911 dialing capability, and courtesy tone.

WHITE PINES DISTRICT SPRING BOY SCOUT CAMPOREE

N9GHZ had sign-up sheets available at the March meeting for operators for the various different operating positions at the Camporee, including: two HF stations, 2-meter station, packet radio station, and ATV station. Time slots are in 3- and 4-hour blocks. If you couldn't attend the March meeting, but would like to assist as an operator of one of the above stations, there are still some slots left open. There are 2 positions available for each time slot for each station, so that while one operator actually operates and adjusts the equipment, the other operator is available to answer questions from Scouts, and explain what is being done and what is going on. This means that, for each station, we need operators who are familiar with the operation of that particular kind of equipment and who are knowledgeable of the principles behind its use.

All time slots for the 2-meter station have been filled, but there are still slots open for the remaining stations. If you're interested in working with one of the two HF stations, contact Jim Sahr, N9IFA, N1878 CTH F, Lublin, WI 54447, home phone (715) 669-3854. If you're interested in working with the packet radio station or the ATV setup, contact Mike Schoenfuss, N9GHZ, 221 Scott St., Apt. 725, Wausau, WI 54401, home phone (715) 845-1006.

N9IFA has indicated that the Medford and Rib Lake Scout troops are also being invited to the Camporee, even though they are not in the White Pines District. Pre-publicity should include all area newspapers as well as, hopefully, many of the area radio and TV stations. The possibility of obtaining a Special Event callsign was also brought up at the March club meeting. On March 19, N9IFA and N9GHZ will be going out to the park in Gilman to check the layout of the park and the building in which our radio equipment and exhibits would be located.

BITS AND PIECES

Mike, N9GHZ, had minor surgery at St. Joseph's Hospital, Marshfield, the morning of Thursday, Feb. 8th, to remove the left half of his thyroid gland, which had a lump on it. The lump turned out to be benign (no cancer), and Mike was released Saturday morning, Feb. 10.

EDITOR'S NOTES

For those of you who have not already

heard the news, I recently resigned my position as a computer operator at Tombstone Pizza Corp. in Medford, and accepted a new position as a Police Communications Specialist (dispatcher) with the Marathon County Sheriff's Department in Wausau. My first day of work there was Feb 15th. As a result of the change in employers, I also moved to Wausau, as of Feb 18th. My new address and home phone number are indicated at the top of this newsletter. My normal work shift is 11 p.m. to 7 a.m. The best time to try calling me, either by radio or by telephone, is from 5 p.m. to 9:30 p.m. The phone number is unlisted. Please do not give it out to anyone besides other Amateur Radio operators!

For the time being, at least, I'm not able to get into the Medford repeater, and I can just barely hear it. The following is a list of repeaters, all located in Wausau, which I "usually" monitor on a regular basis when I have the radio on, and which you can use to try to reach me:

	Input	Output
1	147.66	147.06
2	144.85	145.45
3	146.04	146.64
4	146.22	146.82

The repeaters are listed in the order in which I'm most likely to be found on them. I prefer to avoid the busier repeaters, so I can carry on longer QSOs without monopolizing the frequency. I also prefer to avoid repeaters with wide-area coverage when carrying on some of my QSOs.

I can also access the following other repeaters, and I'd be willing to QSY to them to carry on a QSO, once an initial contact is made; however, I don't monitor them on a "regular" basis:

Tomahawk	145.43	-600 offset
Marshfield	147.18	+600 offset
Wis. Rapids	146.79	-600 offset
Stevens Point	146.985	-600 offset

I hope to make as many of the TCA-ARC club meetings as I possibly can, and look forward to hopefully seeing many of you at the March club meeting.

NEW 2-METER NET

A new 2-meter net has recently started up. It is held Wednesday evenings at 8 p.m. on the 146.04/64 repeater in Wausau. So far, the format of the net is very informal. Subject matter for the net may include ARES and severe weather spotting activities, discussion of matters related to the technical aspects of ham radio, and information about upcoming events, such as hamfests, etc. For the net, the 146.64 repeater is also linked to the 224.64 repeater, also in Wausau. They are looking for check-ins, as well as net control stations. Contact Al, KA9PML, for more information.

73, Mike, N9GHZ
Editor

APRIL SALE
APRIL SALE

Elektronik Specialties, Ink.

SALE STARTS
APRIL 1!

Offering a unique line of products, not found in ordinary suppliers' stock.

LAP EXTENDER - for people with small laps who like to use lap top computers.

Sale price: 700 pesos

PAK-MOUSE - a smaller version of PakRatt, for people on a limited budget.

New low price: 150 marks

REPLACEMENT "S" METER SCALE - goes to 90 dB over S9 - for people who like to give generous reports.

A bargain at 3 francs

VSWR METER SCALES - with negative scale, for people who have been able to achieve an SWR of less than 1:1.

Limited stock: 1/2 crown

RUBBER GOOSIE ANTENNA - for two meter handle-scratchies; gives twice the signal of a rubber duckie.

New Item: 37 rupees

ADJUSTABLE TIMER - connects between mike and rig; emits blaring note, keeps alligators from timing out repeaters.

A steal at 16 dinars

INVERTABLE KEYS - for left-handed operators; easily converted for QLF operation.

Closeout Special: 300 yen

LOW PRICED QRM ELIMINATOR - these needles are made of high temperature steel, will not bend or break.

Package of 5: 20 pfennig

DXer SPECIAL - Add-on speech processor. Adds 20 dB of distortion to signal. Has no off switch, is on at all times. Free when purchased with our 4 KW linear amplifier. Otherwise low priced at just

59 lira

NEW ITEM: OMNIDIRECTIONAL BEAM! No rotor required. VHF and HF models available. Fed with soft line to save costs.

Call for prices

STILL IN STOCK: The latest ground mounted, five band, vertical dipoles. Great where space is limited!

A bargain at 36 drachmas

FOR PEOPLE WHO HATE NETS - We have a special cassette tape, with whistles, music, and assorted belches. Saves your vocal cords! Mailed in a plain wrapper.

\$5.00 money order or certified check only

OUR PURCHASING AGENT and ad copy writer, Vrah Remah, J8-XGN+1, is always finding new items to tempt and delight you! Watch for our ads in future issues!

ATTENTION: When remitting payment for your order (especially

NEW ITEM!! Dummy plug for key jack on all transmitters. A must for the new Communicator licensees!

23 schillings

NEW IN ANTENNAS - triple extended Zepp; more gain than the usual double extended Zepp (15 dB when last measured). Complete kit, except for 80-foot poles, four required.

Introductory special: 3000 lira

NEW LACE CURTAIN ANTENNA - an improvement over the Sterba curtain antenna. Now available in kit form, complete with wire, insulators, 2 ground rods, and 8 drapery rods.

Today's price: \$500 plus freight

NEW FOR REPEATERS: A Socialist voting system. The present Republican-Democrat system seems confused in operation, so we offer a one party system that always works. Merely replace domestic electronics with imported circuitry; boards are interchangeable in most cases.

Price varies with daily stock market - call

SPECIAL! Bang mike - not as loud as boom mike. Frequency response 374 - 2197 cycles.

Price: 33 kroner plus tax (thumb or carpet OK)

LATEST PUBLICATION: Ham/CB Dictionary. Use when talking with former CBers. For example, "first personal" in CB translates to "my name is" in Amateur Radio; "Your number" means "your call is"; "seven pounds" means "you have a strong signal"; and many more translations. We beat Wayne Green with this one!!!!

Send a copy of your license and a green stamp

NEW TOOL: Bladeless screwdriver - prevents you from messing up your rig when you get the urge to twiddle. Makes a great back scratcher.

Supplied in lined case for just \$1.95 p.p.

Late Arrivals!

JUST IN! Beverage antenna - for homebrewers. Uses soft drink and coffee cans as active elements. Includes complete plans and necessary hardware, including can opener and tea match.

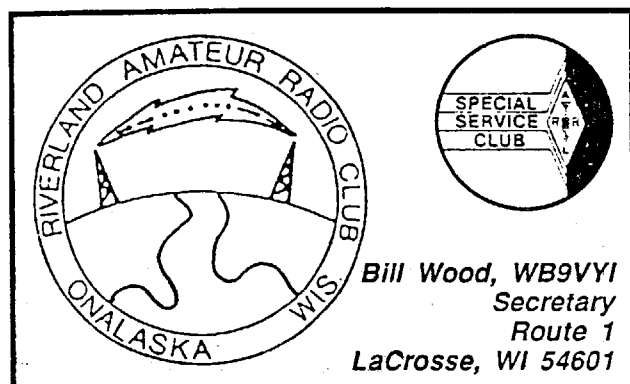
Our exclusive product: \$73.88 plus tax

ALSO JUST IN - another new meter scale. This one's for DXers - meter scale reads S9 over entire scale. A contesters' delight! Order now while supply lasts!

One dollar, no sense

foreign customers), please consult the Wall Street Journal for present exchange values of currency. When in doubt, send more and we will credit your account. Check the latest issue of your favorite Ham magazine, as we move from time to time. By next year, we hope to have an 800 number. Our present number is 27745-178.

We are not affiliated with Larsen E. Rapp Enterprises.



Bill Wood, WB9VYI
Secretary
Route 1
LaCrosse, WI 54601

Greetings.

Our president, Dick Low, KØJYB, called the meeting to order at 7:00 p.m., March 6th, at the Onalaska Civic Center.

The reading of the last month's minutes were called for, given, and approved as written in the Badger State Smoke Signals. Dick then presented the treasurer's report for Arby Boomer, WF9T, who is presently in the Dominican Republic.

Dick is passing out the new club membership cards to those caught up with their dues.

Charlie Burch, KA9UUK, announced the next executive committee meeting will be held Saturday, March 31st, the location to be announced shortly down the road.

Kent Helman, W9LZQ, told us a little more about the packet conference coming up, and also reminded us that those interested or involved in SkyWarn should be participating in the training sessions every two years in order to keep on top of things. (By the way, the RiverLand Packet Association is holding this meeting on April 14th at Nob Hill.)

Karl Olberg, W4ST, moved, and Rick Williams, KV9U, seconded the motion to adjourn, and all were in favor.

Respectfully submitted:

Bill Wood, Secretary, RARC

MEMBERS AND GUESTS PRESENT

Karya Williams	KB9BIS
Tom Gromacki	N9JFI
Larry Kapp	WA9SOQ
Joe Mezera	W9HWQ
Duane Fruechte	KA9UJL
Jule Kish	WD9GCR
Walter Altus	WB9VYI
Bill Wood	KV9U
Rick Williams	KØJYB
Dick Low	KA9ETH
John Jorenby	W9DM
Wid Johnson	XYL/W9DM
Maty Johnson	NØHRN
Fred Sorenson	
Karl E. Simonson	
John Kass	WA9IZY
Charlie Burch	KA9UUK
Dean Summers	KQØC
Bob Selbrede	KA9EZR
Ray Wakeen	WA9HHM
Kathy Van Roy	KB9AHF
Gene Van Roy	KA9RSD
Philip J. Long	KA9RLI
Todd Yandsman	NØHSA
Jack Yoshizumi	WØKTD

Eau Claire Amateur Radio Club

Carl Searing, W9NW
Secretary
1129 McKinley Road
Eau Claire, WI. 54703

MEETING OF 13 MARCH 1990

The meeting was opened by Gerry Marx, NG9A, vice-president, at 7:30 p.m. The secretary's minutes of the last meeting were read and approved. There was no treasurer's report.

Discussion was held on an upcoming severe weather spotter training course, to be held in Baldwin, WI, on Saturday, April 21, 1990. This is sponsored by the St. Croix Valley Radio Amateurs, and all concerned about accurate weather reporting are urged to attend. In line with this, our next club program will feature tornado spotting films.

Mention was made of area packet radio activity. A new node will be activated in

Rice Lake's Blue Hills area, as soon as a new TNC arrives. We understand that there are plans for a node in the Knapp area.

Joe Eide, KB9R, has put up a 440 MHz repeater at his QTH in Eau Claire. The frequency is 444.3/448.3 MHz. It has been operating since February 20, with a nominal output of 40 watts, and an ERP of 80 watts. Its antenna is about 60 feet above ground level, and it has a growing number of users.

John Case, KE9KW, spoke of an observance of "World Day" at North High School, on Wednesday, April 25, 1990. An amateur station will be set up and manned. Volunteers and loans of equipment for this one-day affair are welcomed.

Lunch Committee: W9NNS, W9ZZI, and KB9AYO. The committee is reminded that it is their responsibility to set up and remove the coffee urn, and to provide a supply of soft drinks.

Meeting adjourned at 8:45 p.m.

Respectfully submitted by

W9NW, Secretary

FCC Releases Text of NPRM For Codeless License

(Continued from front page)

would do so indefinitely, or at least until they upgraded to General Class or higher. Volunteer Examiners would be permitted to issue a CSCE to Novices successfully passing the Communicator written exam. Under the proposal, VECs would provide listings to the FCC of the Communicators with the Morse code endorsement. Finally, the FCC proposes that all examinations be administered by Volunteer Examiners, saying that the VECs provide more credible results than does the two examiner system now in use for Novice examinations.

The deadline for filing comments with FCC is August 6, 1990. Between now and the July 20-21 meeting of the American Radio Relay League's Board, the Directors are looking forward to hearing from as many members as possible to assist them in determining the League's response. The full text of the FCC's codeless proposal will appear in the April 1990 issue of QST.

- The ARRL Letter,
02/27/90

80 Meter Novice/Tech Subband Change Proposed

The Federal Communications Commission has announced a Notice of Proposed Rule Making to shift the 80 meter Novice band 25 KHz in frequency, from 3.700-3.750 MHz to 3.675-3.725 MHz. P.R. Dock et 90-100, which was announced on Thursday, March 1, cites Canadian phone operations as the reason for the proposal.

Comments will be requested from the amateur community with respect to the level of interference in the current Novice and Technician segment.

Also, Washington wants to know whether a relocation of the Novice and Technician segment to 3675-3725 KHz would cause interference to any other operations engaged in by amateur stations.

Amateurs may file comments on or before June 15, 1990, and reply comments on or before July 13, 1990.

- The Westlink Report, 03/16/90,
and The ARRL Letter, 03/15/90

Ron Reed	KD9OY
L.F. Bentzen	K9EGO
Kent Helman	W9LZQ
Greg A. Miller	KA9FOZ
Ernie Gershon	K9ZVU
John Burcum	K9OAH
Don Hunter	NØLIM
John Young	W9KAZ
Herman Ludvik	W9HJV
Bruce Bjorstedt	K9CHT

Hugh Barker	KAØEJZ
Art Osborn	WØJDC
Karl L. Olberg	W4ST
Roger Reader	KA9BKK
Van Elston	WA9FIO
Richard Fink	
Scott Neader	KA9FOX
Gary Webb	N19V
Steve Pavela	KA9TSW
Luis Felipe Reyes	HJ5PDD/WØ

Special Event Station AE9K Nichols Observatory

Members of the W/K Amateur Radio Club of Greater Milwaukee will set up and operate their second annual special event station, AE9K, from the high vantage point of Nichols Observatory on May 5, 1990, between 9:00 a.m. and 11:00 p.m. A new barn has been constructed to add to the observatory complex.

Observatory owner and operator, Nick Nichols, expects a huge turnout of visitors to his astronomer's haven, which is perched on a hill in the beautiful Washington County countryside, southeast of Slinger. Member astronomers will host an open house at 1:00 p.m., give tours, present programs, and answer questions. Those people curious about the night skies can directly view billions of stars, and even a few planets, through a 12.5 inch telescope.

If guests enjoy seeing the stars, they will be fascinated to discover the mysteries of shortwave radio as special event station operators in action bounce signals around the earth and promote Amateur Radio. Plans have been made to monitor packet radio signals, listen for OSCAR passes, and communicate through the new "DOVE" microsat. SSB contacts will be made with amateurs and other astronomers worldwide on frequencies of 14.275, 21.350, and 28.450 MHz.

Ask AE9K of Muskego for more details.

- Richard Regent, K9GDF

New Products



MFJ-1112 MULTIPLE DC OUTLET

MFJ Enterprises, Inc. announces the release of the innovative new MFJ-1112 Multiple DC Power Outlet. It saves you space and money by giving you six pairs of heavy duty binding posts for connecting your accessories.

The MFJ-1112 Multiple DC Power Outlet connects directly to your 12 VDC power supply. RF bypassing keeps RF out of the power supply from the DC line outlet. The attractive black aluminum cabinet measures a sleek 13-1/2" x 2-3/4" x 2-1/2". You also get MFJ's one year guarantee.

For more information, contact any MFJ dealer, or MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762, or call (601) 323-5869, Telex: 53 4590 MFJSTKV, FAX: (601) 323-6551, or order toll free at (800) 647-1800.

- MFJ news release

Northern Wisconsin Radio Club

—Since 1923—

Steve Kraft, KE9RW
Secretary
Rt. 7, Box 62
Menomonie, WI. 54751

The last gathering of the NWRC was February 20, 1990, at the American Legion Post in Eau Claire. This was the annual club auction of amateur and electronic items. There were about 70 people in attendance, from around Wisconsin and neighboring Minnesota. Results of the auction are very good, with over \$250 to be added to our account. Many thanks to all

who helped make this a success. Special thanks to WB9OKQ, Lyle, and KD9YO, Steve, for auctioneering. Also, thanks to those who brought food items, and to Karn and Arlene, N9JBN, for their help in the kitchen.

We were sorry to not be able to bring you WJ9Y, Marlin, and his program on laser technology in February, due to the heavy snow. Marlin is being rescheduled for April 24.

The next meeting of the NWRC will be March 27 at the Peppermill Restaurant in the Thunderbird Mall, Menomonie. Meeting time is 7:30 p.m. WØLUY, Ernie, and Delores Wendt will speak on Blue Birds. Hope to see you there!

Steve Kraft, KE9RW

Secretary

Lakeshore Hamfest & Computer Swapfest

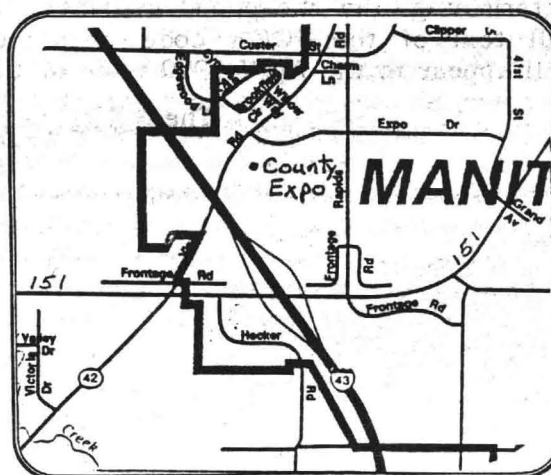
Manitowoc County Expo

Intersection of Hwys 42-151 and I-43 on County Hwy R (Follow signs to the Expo Center)

Saturday, May 12, 1990

- Doors open at 8 a.m.
- Open for vendors at 7 a.m.
- Accommodations for vendor drive-ins
- FCC amateur exams
- For more information, call
Days—"Red" 414-684-9097
Nights—"Lou" 414-682-2557
- Call-in repeater frequencies
146.01 - 146.61 or 147.03 - 147.63

Hamfest Camping Available
Contact
Manitowoc County Expo Center
414-683-4378



Send reservations to:

MANCORAD Radio Club
P.O. Box 204
Manitowoc, WI 54221-0204

Please Include
a
S.A.S.E.!

Name: _____

Street: _____

State: _____ Zip: _____

Advance Admissions @ \$2.00 each _____

Reserved 8' Tables @ \$3.00 each _____

Electric Outlets @ \$5.00 each _____

TOTAL _____

EXAMS

Novice _____ Technician _____ Extra _____

General _____ Advanced _____

FCC Starts Wheels Turning On ARRL "Part 97 Cleanup Petition"

The Federal Communications Commission has assigned file number RM-7243 to the American Radio Relay League's petition of November 14, 1989, to revise certain sections of Part 97 of the rules governing the Amateur Radio Service, better known as the "Part 97 cleanup petition." The purpose of this petition is to request the FCC to consider certain changes that they did not deal with in PR Docket No. 88-139, the major Part 97 rewrite, which became effective on September 1, 1989.

The FCC's stated purpose of the 88-139 proceeding was "reorganization and deregulation of Part 97." Reorganization amounted to changing the order of the subparts and sections, which had become patchwork. The deregulation goal could be measured by the number of pages eliminated from the rules; of course, there was hope for some simplification as well. In its comments to the FCC concerning their proposed rewrite, the League made numerous recommendations, which took the form of a complete new draft. The FCC's Report and Order contained many of the League's recommendations, decided that others were substantive changes and beyond the scope of 88-139, but left the door open for changes under a new proceeding. That's when the ARRL Ad Hoc Part 97 Rewrite Committee was called back into service to draft a cleanup petition.

In its petition, the League asked the Commission for a number of substantive changes. One was to ease restrictions on transmission of third-party traffic when operating under automatic control on frequencies above 50 MHz, which presently allows such operation only when using AX.25; this would eliminate the need for a control operator to be on duty whenever a voice repeater is used for a traffic net.

The petition made a strong appeal to the FCC to amend section 97.121, which presently permits the Field Operations Bureau to restrict an amateur station operation, and entitle the amateur to a hearing in accordance with section 316 of the Communications Act.

The League again asked for relief from "the amplifier ban," which posed frequency and minimum drive power restrictions on commercial amplifiers because of illegal CB use. The present restrictions deprive amateurs from the opportunity to purchase amplifiers for the 24- and 28-MHz bands.

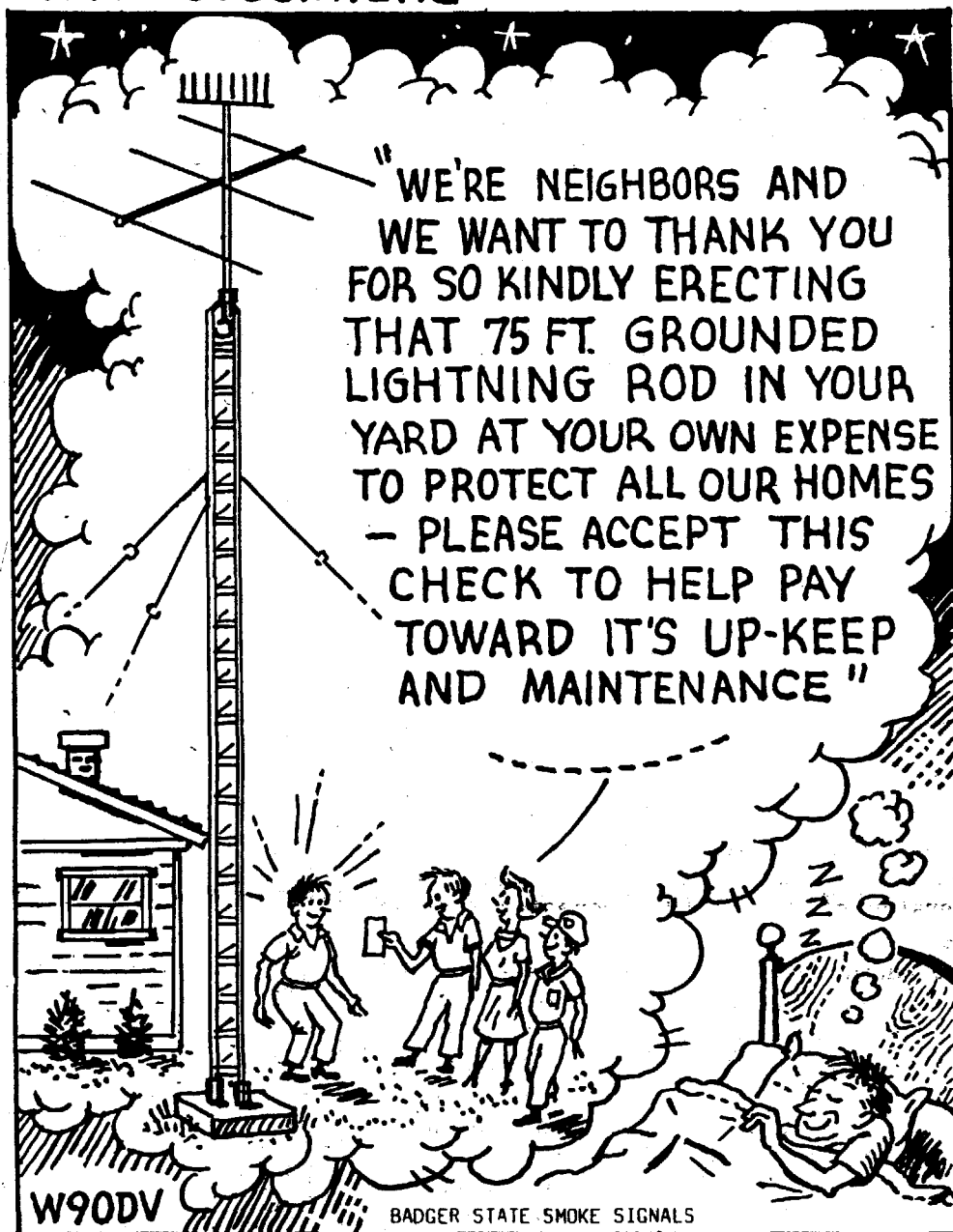
The League feels that the restriction in section 97.515(c) that "no person may be a VE if that person's amateur station license or amateur operator license has ever been revoked or suspended" is overly harsh and that a person should be considered eligible to serve as a VE ten years after such termination.

The ARRL reiterated its request to permit amateurs to retransmit Department of Commerce time signals, weather, and propagation forecasts.

As for cleanup, the League asked for definitions to be added for "ASCII," "AMTOR," and "Baudot" codes, "digipeater" (to distinguish it from a voice repeater), "emergency communications," and "tactical call signs." Technical improvements in the definitions of "bandwidth" and "spurious emissions" were also sought. The League also asked the Commission to add "space telecommand," "space telemetry," "telecommand," and "telemetry," and to bring them into agreement with Part 2 of the rules. Additional amendments in some sections were recommended to reflect the definitional changes. The League recommended that the rules be amended to require at least four persons to constitute a club, as opposed to the present two persons. The cleanup petition requested flexibility in use of radio apparatus aboard a ship or aircraft; current rules require separate radio equipment for amateur operation, except that a common antenna may be used. The petition asked that the requirement that bulletin or code practice stations, for which material compensation is not prohibited (example: W1AW), transmit on all MF/HF bands be reduced to six MF/HF bands.

- The ARRL Letter, 02/27/90

QTH - Dreamland



Baby Cardinal Saved by Ham

Vern Teske, W9RYA, loves birds - even after spending a long, hectic day encouraging a baby cardinal to leave Vern's two-car garage.

As Vern recalls the story, "A baby cardinal somehow got into my garage. I opened both overhead doors and the service door, but he wouldn't leave. Every time I tried to shoo it out, the bird would retreat into the garage rafters. Cardinals instinctively fly upward when they're frightened," despite the tempting seeds that Vern placed just outside the garage.

Meanwhile, cardinal parents created a ruckus, darting, diving, and flying around the garage in panic and concern for their baby. After nearly three hours, little baby cardinal, tired of flying amongst the rafters, glided to the garage floor. So Vern thought about the situation, got a butterfly net from a neighbor boy, and coaxed the bird with the net in the right direction, out of the garage.

Exhausted baby cardinal learned an important lesson about confusing garages with his own nest. Finally, the naive baby bird flew off to join his parents. Angry and noisy father cardinal made one more dart past the garage. Whether it was unappreciative anger at the garage, or grateful thanks to Vern, his son was freed out of a tricky predicament. All ended well for birds and helpful bird lover Vern.

- Richard R. Regent, K9GDF

FLARC Presents Awards, Elects Officers

(MADISON) - The Four Lakes Amateur Radio Club held its annual awards banquet on January 20, 1990, at Mountain Jack's in Madison. Individuals were recognized for their contributions for the past year. (See photos on page 14, February, 1990 Badger State Smoke Signals.)

A Lifetime Achievement Award was presented to Art Saboe, W9ZM, in recognition of his accomplishments in the DX area of the hobby, while noting that he continues to participate in the hobby by helping others. He continues to show what the best in Amateur Radio is all about.

This past year, our friend Jim Anderson, N9AGH, became a Silent Key. At the banquet, it was announced that, in recognition of Jim's consistent efforts for public service in conjunction with the Red Cross, the Red Cross radio room will be named in his honor.

And, Gari Berliot, NG9V, was named Ham of the Year for the Four Lakes ARC. Gari was honored for his consistent contributions over the past several years as the coordinator for the FLARC Volunteer Examiner Program, for his work on the board of directors of the Central Wisconsin Repeater Association, and as the owner and operator of a 440 MHz repeater that is used by the Madison DX Club. Gari has also participated in other events sponsored by the Four Lakes Amateur Radio Club.

The board of directors for 1990 was also introduced. The new officers of the club are: Jim Patterson, KC9GO, President; Jim Gordon, KQ9L, Vice President; Chuck Forster, WA9ACI, Secretary; and John Hicks, KA9KYB, Treasurer. Directors are Gary Muskat, N9DRA; Peter Quigley, KB9ASQ; and Paul Goemans, WA9PWP.

- Jim Patterson, KC9GO

Hams Assist Klondike Derby

(RACINE) - A new dimension was added to this year's Boy Scout Klondike Derby. Amateur Radio volunteers provided communications for the event. Judges or group leaders were able to get questions answered, advise of their need for replacement equipment, and get confirmation that their requests were being handled quickly via the ham radio system.

This year's derby, called "Flake Fest 90," was sponsored by the Lighthouse District, Southeast Wisconsin Council, Boy Scouts of America. It was held at BSA Camp Oh-Da-Ko-Da, south of Burlington, Wisconsin, at the Racine/Kenosha County line. The event was attended by more than 500 participants, including Cub Scouts, Boy Scouts, OA, and volunteer helpers. The ham operators had a blast - it is always fun to watch kids have a great time!

As with the Scouting volunteers, the ham radio operators came from a cross section of the community, and included Racine Police Chief Karl Hansen, WB9UUD.

Many thanks to those hams who participated, and let youth see Amateur Radio operating in a public service role.

- Dave Voss, WB9USI
3333 Standish Ln., Racine, WI 53405

EDITOR'S NOTE: The author of the above story is a Unit Commissioner in the Lighthouse District of the Boy Scouts of America. He is also the president of the Racine Megacycle Club, which serves ham radio operators in southeast Wisconsin. He's also known as Sgt. David C. Voss when he's working at his job as a Unit Commander in the Street Crimes Unit of the Racine Police Department. If you'd like to send him traffic on packet radio, send it to WB9USI @ N9BYS.

Boy Scout Pilgrimage Special Event Station

On Saturday, April 28, 1990, the Great River Amateur Radio Club of Dubuque, Iowa, and the Palisades Amateur Radio Club of Savanna/Mt. Carrol, Illinois, will co-sponsor a special event station in conjunction with the 36th annual Gen. U.S. Grant Boy Scout Pilgrimage.

Time of operation will be from 1600Z to 2200Z. Frequencies will be the lower portions of the general bands, and the Novice portion of 10 meters. There will be some CW operation, as well.

QSL via WK90, Box 141, Galena, IL 61036. No SASE is needed.

- Art Evans, KA9KLZ

TRI-COUNTY AMATEUR RADIO CLUB PRESENTS:

SWAPFEST 1990

TO BE HELD ON:

SATURDAY, MAY 12

NOTE THE NEW DATE!

AT

JEFFERSON COUNTY FAIRGROUNDS

HWY 18 WEST, JEFFERSON, WI

FROM 8:00 AM UNTIL 2:00 PM

THIS WILL BE AN INDOOR-OUTDOOR EVENT. INDOOR SPACE REQUIRES A RESERVATION. BRING YOUR OWN OUTDOOR TABLES. SET UP WILL BE IN A RESERVED OUTDOOR VENDING AREA. COMMERCIAL SALES AREA INDOORS. ELECTRICITY AVAILABLE INDOORS ONLY. A NOTE TO VENDORS: SPECIAL NEEDS CAN BE HANDLED IF WE ARE CONTACTED IN ADVANCE.

PLATE LUNCHES AND BEVERAGE PROVIDED BY JEFFERSON 4H.

AMATEUR EXAMS: FROM 9:00 TILL NOON. GIVEN BY THE WATERTOWN AMATEUR RADIO CLUB. BRING YOUR FCC LICENSE, ORIGINAL AND A COPY.

HANDICAP ACCESSIBLE!

TALK IN ON THE NEW 145.49 REPEATER!

ADMISSION: \$2.50 ADVANCE - \$3.00 AT THE DOOR

4x4 FOOT TABLE SPACE (INDOOR ONLY) - \$3.00 RESERVE YOUR SPACE EARLY!

SEND YOUR S.A.S.E. TO: TRI-COUNTY AMATEUR RADIO CLUB

PO BOX 112

JEFFERSON, WI 53549



Radio Active

Appleton area Radio Amateur Josh Griswold, KB9DYF, at left, is a ninth grade student who earned his Novice license through the instruction of Myron Jackson (cover photo). Josh spends almost every noon hour in Jackson's classroom, using the amateur station at school. "I like electronics, and I really like radio," he said, noting how his interest was piqued when Jackson brought his radio into the 7th grade science class. "I like talking to other countries," Griswold said, citing his visits with other hams in Puerto Rico a month after Hurricane Hugo. "I mostly use Morse code."

Thanks to Don Baker, NB9J, for calling the original article to our attention!

Photo courtesy Mark Courtney/Post-Crescent.

Miniaturizing a Repeater Directory

Hams have developed many clever devices to help them operate their radio equipment. About six months ago, Gregory Schneider, W9IEI, of Appleton, Wisconsin, went into a store and bought one of those thin credit card-sized electronic telephone directories for \$15. It was intended to be used to enter, save, and recall names and telephone numbers, kind of an electronic note pad with a liquid crystal display.

But, Greg had a new idea. He took the unit home, crouched over the electronic directory most of one weekend, and laboriously keyed in the cities and frequencies of 150 Wisconsin repeaters. All the 2-meter, 220 MHz, and 440 MHz repeaters he could find fit into its 4K memory. A miniature repeater directory was born, and the device still worked as a four-function calculator.

"It's real handy," says Greg. Take it out of your shirt pocket or wallet, key in the first letter of the city you're visiting, and read the repeater frequencies on the LCD screen. With such technology available, maybe some day you will be able to type in the city on the keypad of your radio, and it will find a clear repeater frequency.

- Richard Regent, K9GDF

JANUARY 4, 1983

A CURE WAS FOUND FOR THESE DISEASES :

1. REFLECTED POWER-ITCH
2. KNOB-ITUS
3. QRM-DEAFNESS
4. BUTTON-PHOBIA
5. SWITCH-CANKER
6. SUPER TUNER-BLUES
7. CROSS NEEDLE-EYES



THE CURE IS:

MAXCOM

AUTOMATIC ANTENNA MATCHER®
FOR ALL S.S.B. RADIOS

*** ONE SHOT GUARANTEED TO LAST AT LEAST FIVE YEARS!**

SONNY IRONS, BOX 502, FT. LAUD., FL. 33302
305-523-6369

* MAXCOM is a registered trademark and is owned by Maxcom Electronics, Inc.

THE BOTTOM LINE: "MAXCOM WORKS"

EC Meeting in Menasha

Despite an overnight snow storm, the turnout at the Fox Cities Swapfest was great. A meeting of amateurs interested in emergency communications began at 10:30 a.m. in a room to the west of the main swapfest area. Ideas saved from thoughts held since the last meeting began quickly surfacing.

WD9FLJ, Outagamie County Emergency Coordinator (EC), suggested organizing a packet radio weather net, using the prosign "Tact-1" to indicate changing to a simplex frequency, practicing fan-out procedures, and improving inter-county communications. John keeps a list of the emergency-type nets on his car visor to help him find frequencies and net times.

WD9HID is collecting maps of adjacent counties for providing quick response routes and pinpointing active locations. KN9P, EC of Calumet County, says use of the HF nets for overlapping districts is worth considering. WA9CUD and his son, KAØESH, of Wau-paca, had several good suggestions, as did WD9BCH, of Wood County.

KE9UC (ex-N9IKD), Central Wisconsin DEC, is looking forward to getting EC positions filled in all Wisconsin counties. He reminds us that as amateurs, besides enjoying our hobby, we should remember that our communications privilege should also serve the community to be responsive and responsible in times of emergency. Paul tells us that ECs do not necessarily need to be residents of the county they serve. He recommends developing an ARES repeater list, visiting government contacts a couple times per year to support the emergency communications program and, hopefully, having an EC meeting at each swapfest in Wisconsin.

- Richard Regent, K9GDF



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

c/o CARL SCHUMACHER, N9BYS
7740 EVERGREEN TERRACE
BURLINGTON, WI 53106

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

RIVERLAN PACKET CONFERENCE 4/14/90

WIANT Node Upgrade

School Packet Station On .97

Wisconsin, Minnesota & Iowa Packet operators. Saturday, April 14 is the date for the fantastical RIVERLAN PACKET CONFERENCE beginning at 9:30 a.m. Location: Nob Hill restaurant (Highway 53 north of Onalaska WI). Coffee and Rolls at 9:30; Riverlan business meeting at 10:00; conference begins at 10:30 a.m. Talk-in on 37/57. Pre-registration requested. Lunch will be served. Pay at the door.

10:00 State Emergency Coordinator session - the role of packet radio in emergency communications and skywarn. Includes a discussion of Nexrad and doppler Radar.

12:00 Lunch

1:00 Concurrent sessions: Skywarn training; Technical forum and operations forum.

2:00 TBA - Including use of packet at local events.

Yes there is a use for packet beyond checking into your local BBS and reading bulletins! Come find out! Packet your registrations to W9LZQ@W9LZQ. Include names of all attending, callsigns, addresses and phone numbers. You may also mail your registration to Kent Helman, 153 Fairfield St., Onalaska, WI 54650.

Don't miss this year's opportunity to meet and talk with other packet operators throughout the tri-state area and to learn more about packet's role in public service communication. See you there. 73,

Kent, W9LZQ

New Central Wisconsin Net/Rom Node Planned

Scott - NE9U has announced that WICWRA node will be active on 144.91 for LAN coverage of the Stevens Point area. Currently the system is using a low antenna on 145.01 until the Net/Rom chip arrives and is installed.

Scott also operates a 144.97 / HF Gateway with 45 watts running to a 4.5 db vertical at 65 feet on 2 meters and up to 1000 watts into a 5 element tribander on HF.

ATARI PACKET PROGRAM

I have a packet program on disk for the Atari computer and the documentation for it. A copy is FREE for the asking. Anyone interested may write to: DEB SPITZER - NOHOX, 1329 23RD. AVE. N., CLINTON, IA. 52732 or call: (319) 242-7595.

An upgrade to the WIANT node serving the Antigo area will be implemented soon. It will consist a new amplifier and preamp on the 6 db antenna at 70 ft. ERP will increase to 700 Watts in order to improve our coverage in the northern section of the State. Comments about the node may be directed to K9MLD @ WA9KEC.

Joel - K9MLD

DX Packet Cluster Frequencies

Paul - KS9K furnished this list of the current DX PACKET NETWORK for the state of Wisconsin:

KS9K - 223.46 MHz - Racine, WI
NB9C - 223.48 MHz - Delafield, WI
WI9L - 223.46 MHz - Jackson, WI
KR9S - 223.48 MHz - Sheboygan, WI
AA9A - 223.48 MHz - Freedom, WI

A 2 meter / 220 link is available thru WISHE/#SHE2 to AA9A and KR9S.

WA9KEC Makes More Changes

YUP! you heard right, I've been at it again. As most of you may know, since swithcing to MSYS 1.06, my system has crashed one or more times every day. I have put MSYS 1.07 on line, trying to stop the crash problem. I have made the following changes in the set-up here. I sure hope this works!!

The BBS has three ports:
port #0 145.07 50 wattsport #1 145.09 150 wattsport #2 Nodes

Port #2 is connected to a diode matrix with three Nord Nodes on it.

A9KEC-2 KEC is on 145.09
WA9KEC-3 #KECB is on 446.100 (4800 baud)
WA9KEC-4 #KECS is on 223.42

(I will change the alias's when I get a chance to get to MKE and a prom burnner.)

On 145.07 & 145.09 users can connect to the BBS call sign WA9KEC. From any one of the nodes (KEC, #KECB, #KECS) you can connect to the BBS node (WIBBS/WA9KEC-10), and then give the command BBS to get into the BBS.

As always, If it don't work, let me know and I'll see if I can fix it!

Hawk, sysop of the WA9KEC mess

Look for the packet fans from James Madison Jr. High School thru WIGLK. The station callsign is: WB9BBI-1. Mike - WB9BBI is a teacher at the school and has a packet as well as HF station set up. Look for Eric - KB9DYG/KT (Tech), Josh - KB9DYF (Novice), Saul and Bill (awaiting their tickets).

AMSAT Microsat Update - March 10

Week seven at the AMSAT Satellite factory finds each satellite closer to full commissioning for general use. DO-17 continues to excite newcomers to the world of Amateur Satellites with its ease of telemetry reception. Anyone with a 2 meter FM receiver tuned to 146.825 MHz, a 1/4 wave ground plane antenna (there is no tracking required with this antenna!) and a standard TNC will be able to receive telemetry packets from DO-17. By listening from 8:00 am through 1:00 am and 7:00 pm through 12:00 am local time, you should be able to pick up a number of passes of DO-17. DO-17 transmits packets for about 2.5 minutes followed by an "off period" of about 30 seconds. As is the case with each of the Microsats, the telemetry offers 59 telemetry points and the AMSAT Software Exchange has available programs that translate the data points into more easily recognizable information (ie: battery voltage, solar cell current etc.).

A0-16 and L0-19 have been available for digipeating packets. Numerous stations have successfully connected to "DX" (as far as VHF-packet operations is concerned) via these two birds. The Store and Forward capabilities of A0-16 and L0-19 have yet to be enabled, pending further testing.

The modulation protocol on these two birds is as follows. The TNC must use an external 1200 baud PSK modem rather than the FSK modem that is standard on commercial TNCs. Approximately 100 watts EIRP FM is all that is required to access A0-16 or L0-19. Your downlink receiver must be set to USB or LSB. To digipeat through A0-16 you must use the address PACSAT-1. To digipeat through L0-19 you must use the address LUSAT-1.

Below are listed the downlink and uplink frequencies of A0-16 and L0-19:

A0-16 Downlink 437.025, 437.050 MHz
Uplink 145.90, 145.92, 145.94, 145.96 MHz

L0-19 Downlink 437.150, 437.125 MHz
Uplink 145.84, 145.86, 145.88, 145.90 MHz

ICOM 37A / TNC Hook-up

TNC	ICOM 37A
-----	-----
PIN 6	SPEAKER +
PIN 1	PIN 1
PIN 2	PIN 6
PIN 3	PIN 5
-----	-----

Wilson HTs And Packet

If your interested in putting your old Wilson HT to use in the packet mode and do not have the schematics, here is some information that you may need.

The speaker/microphone connector has 6 pins and 5 locking tabs (which guide the connector into it's socket on the HT). The tabs are patterned such that there is one large tab by itself and the other four smaller ones in two groups of two. The pin next to the large tab is #1 and #2-6 follow clockwise.

Function	Pin #	Spkr/mic* wire
-----	-----	-----
Mic	1	red
Speaker	2	white
PTT	3	blue
Ground	4	black (shield)
12 VDC	5	N/C
N/C	6	N/C

* Note that the Spkr/mic refered above to is the Wilson hand microphone.

I am successfully using the Wilson 1405SM (5 Watts) on packet with a TXDelay of 230 milliseconds.

Mike - WB3CPF @ N2EYR

Digicom Problems?

I have heard of several cases where Digicom (any version) will lock up while transmitting. I have had it happen myself when connecting to myself and have heard that at least one person had his rig smoked because it locked up when he wasn't around.

I would suggest that someone try to come up with a watchdog circuit to add to the Digicom modems so that it will timeout if the PTT is continuously active for a certain length of time, say 30 seconds. Normally, the PTT is never held-down more than about 5-10 seconds at a time anyway, because it has to release it in order to receive an acknowledge from the one you're connected to. Such a timeout should remain in effect until the PTT is released by the computer (by shutting down or resetting) in case of a lockup.

I've only had mine lock up once, and as I said above, it was because I tried to connect to myself. I have an idea that the cause may lie in the routine in the program that has to do with the bell. When you connect to yourself, it must sound the bell twice at the same time, once for each port involved. The current routines may not be able to handle it. If this is the cause, then it's also possible for a crash to occur if any combination of connects and disconnects on multiple ports occurs at the same time for any reason,

as well as someone you're connected to sending CTRL-Gs on two different ports at exactly the same time.

Thoeretically speaking, two users sending CTRL-Gs at the same time shouldn't cause a crash, because the frames containing them are not repeated at the same time. But it can happen when the two frames come out of the buffer close enough together.

Paul - N5PCA @ AE5I

KB9OK Improvements

Rudy - KB9OK reports that he has made some changes and improvements. The most recent improvement is the addition of node WISE (which stands for Wisconsin South East). The RF port of this new node is on 28.195 mhz, a 1200 baud HF frequency. WISE:KB9OK-10 is hardwired to WIGTN:KB9OK-9 serving southeastern Wisconsin's LAN frequency of 145.09 and WIGER:KB9OK-3 which serves a BBS free frequency in Illinois & Wisconsin on 145.03. (WIGER is beaming west, connect to it via the digi KCI or node KC9CI-2 if you have trouble connecting to it), from all other areas, connect via the nearest net node (if WISE shows in the node list of course).

WISE:KB9OK-10, WIGTN:KB9OK-9 & WIGER:KB9OK-3 are located 15 miles northwest of Milwaukee in Germantown, WI. WISE, with its port on the 10 meter band, could be your link to the rest of the USA. AZSE:N700-10 located in SE Arizona (17 miles SW of Tombstone) proves to be the most solid connect on 10 meters here in Wisconsin. AZSE seems to have a link all the way to the east coast, so coverage over the entire United States (depending on 10 mtr. propagation) via the WISE/AZSE path is probable. There are no BBS's on 28.195. Other than QRM created by keyboard to keyboard operators, there is nothing but propagation to slow you down.

I have made a change in frequencies for the GTN/node & GTB/pbbs system, port #1 is now on 145.03 & port #2 on 145.69, but you will, at least until I have the node hardwired to WIGER, have to use another station on 145.03 to digi through (use "KCI" for digi, or KC9CI-2 as a node) to get back to WIGER (C WIGER V GTWN, KCI).

For the time being I will have the tnc which holds the WISE software, serve a dual purpose. When the 10 meter band drops out at about 7 to 8:00 pm, I will install the convers node software into the tnc, reinstalling WISE software when the band once again is active. (Looks like I need another tnc for the convers node, my XYL will kill me for sure).

Another thing, since I can not leave the node on HF unattended, you may find that during times where I am not around the house or office, the 10 meter rig will be turned off. This is unfortunate, but it is due to the fact that permits for unattended operation are not issued anymore.

Rudy - KB9OK

Fixing Things

Seems like I am forever FIXING things. I can't seem to just sit back and enjoy life while everything is working. Like the past two week-

ends, I have been "fixing" the Tomah node. Seems like no matter how much "fixing" I do, the "fixing" never stops. When I first took that radio to Tomah, I figured, "no more trips here for a long time." Well, that didn't prove true.

Then there is the toilet. About a year ago, the tank started leaking...well, I stopped the leak, but the bathroom carpet got a bit of a stain, so I figured I would replace the carpet eventually. Well, just recently, it started leaking again and now the sub-flooring will have to be fixed as well as replacing the carpeting.

Now the garage door. The door will not close with one push of the door opener close button. It balks about halfway down. Seems the track on the door needs to be narrowed a bit to prevent sideways movement of the door on the way down. That has to be fixed. There is the valve on the hot water gas furnace. It is supposed to let in additional water when the water in the system evaporates or disappears or whatever it does. Well, it doesn't always function properly and so suddenly when the gas furnace fires, I hear all this popping and banging which is a clear signal there is not enough water in the system. I go down to the furnace and take a heavy two-by-four to the valve which shakes it enough to allow the valve to open, but....it needs replacing...or FIXING!

Then there's the toaster oven. Supposed to heat to 450 degrees, but it won't. Only goes to about 320 and anything above that blows its circuits and resets the microprocessor in it. Needs fixing, and since it is out of warranty, I should look at it first....just as soon as I take care of these other projects.

Well, I just ran the garbage disposal. Yep, it worked...it ran the garbage right up into the other side of the double sink. So now I have a plugged pipe and no snake. I tried the plunger. Good thing I wasn't near the other side of the sink.

This fall, I called Sears to come out and fix up my little snow blower. I asked them to replace the pull-start rope as it was getting a bit frayed. So they came and it cost me xx bucks to fix. So the first time this winter when it snowed more than I could handle with a shovel, I got out the 'ol snowblower to "power out" the snow. I pulled on the starter rope and it wouldn't retract. Back to the shovel, back to the telephone to call Sears.

Last spring, I hooked up the hose and sprinkler and turned on the faucet. I sprung a leak! Not outside...inside! Yes, the water pipe had frozen and water sprayed all over the place. The water pipe is located directly above my workbench.

Now, guess what.... I went to the computer to do some work and when I tried to access the directory in which my program is contained, I got a "GENERAL DISK FAILURE" message. Yes, I tried again and again and again and the message was the same. My last backup was 9 months ago.

Well, tonight I am going to bed and plan to do all the FIXING I can this coming weekend. Hope all goes well. G'night.

P.S. One of the slats under the box springs split and when I went to bed, I, along with the box springs and mattress ended up halfway on the floor.

Kent - W9LZQ

Yellow Thunder Amateur Radio Club



K90DK
WB9FDZ

Art Kleefisch, W9WSS
Secretary
1014 5th Street
Baraboo, WI. 53913

The next meeting of the YTARC will be held on Tuesday, April, 17, in room 12 of the Baraboo Civic Center. Dennis Sweeney will present a talk on Micro-Biology. Dennis works in this field for the University of Wisconsin. The meeting will start at 7:30 PM.

The March 16th 1990 meeting was a joint meeting with the Novice Class students. All of the students were invited to this meeting. A half hour Novice code practice session started out the evening. The business meeting was called to order at 7:45 PM. The minutes of the January meeting were accepted as published in BSSS.

The Treasurer, Jim Decker, reported \$175.48 in the operating fund and a total balance of \$218.75.

The Novice classes are now meeting twice a week. This is a good class and some of the students should pass their novice test. April 3rd. is the last scheduled class.

The March of Dimes Walkathon will take place on Saturday May 12th. Jim Decker, WB9UQT, is looking for any Hams that can help with the communications for this walkathon. Jim would like to include Packet Radio in this years walkathon if he can get some Data Base Software to work with the Packet system. Please contact Jim and let him know if you can help with this Amateur Radio communication project.

The buck-nite winner was Harry Mayland, KA9FFT. The meeting was adjourned.

The following members and guests were present:

Jim Decker	WB9UQT	Baraboo
Harry Mayland	K9FFT	Baraboo
Harry Westland	K9EHJ	Baraboo
Art Kleefisch	W9WSS	Baraboo
Duane Grotophorst	KA9HKL	Loganville
Harold Reif	KA9YQP	Baraboo
L.J. Hemmer	WB9TFJ	Baraboo
Sandy Hemmer	KA9VFW	Baraboo
Marvin Kaiser	Student	Wis. Dells
Dennis Sweeney	Student	Portage
Joey Sweeney	Student	Portage
Dennis Sweeney	Student	Portage
Marge Reppenhagen	Student	Portage
Gary Zarcone	Student	Oxford

The program was a demonstration of Amateur Radio equipment for the Novice students. A 20 meter dipole antenna was strung up in the room and excited with a transceiver. A fluorescent tube was used to show that the maximum voltage is present at the ends of the antenna.

The boards were pulled out of a Heath SB-104A to show the type of electronic components

used inside a transceiver. The cover was taken off a Heath 1400 transceiver to show the insides of this transceiver.

Then the students mixed with the ham members and talked about the Amateur Radio Hobby.

Art Kleefisch, W9WSS, Secretary

YTARC BIRTHDAY

Bennie Ranum	WB9QQG	April	23
William Klinkner		April	27

SENTENCE SERMON

There is in the minds of men, I know not how, a certain presage, as it were of a future existence; and this take deepest root in the greatest geniuses and most exalted souls.

--Cicero

And did you hear about the XYL who borrowed twenty bucks from her OM and promised to pay him back on the 15th when he gets his paycheck!

In working DX, did you notice that there aren't too many Russians named Jim!

I had an item for here but there isn't any

AMATEUR RADIO NOVICE LICENSE CLASS

With an Amateur Radio license, you can learn technical skills, help in emergencies and talk to an international network of friends from your home. People from all walks of life enjoy ham radio. You can too. The Four Lakes Amateur Radio Club is sponsoring a Novice License Class for beginners. In nine weeks you'll be ready for your Novice License test. Come to the first class 7:00 p.m. on Wednesday, April 11 at Fire-station Station Number 2, 421 Grand Canyon Drive, Madison, WI. There will be a small fee to cover instructional materials. For information call Tom Kaminski at (608) 233-1845 or Mark Jenks at (608) 832-6631.

Your conscience is a little voice that keeps saying, "Your XYL will be sure to find out."

Hey OM, the next time you call your dog a dumb animal, remember who he's got working to support him!

Some OMs object to fan dancers. Guess what OLD man objects to the fan. It's none other than ... W0CCT (via ARNS bulletin)

Badger State Smoke Signals

ADVERTISING RATES - SCHEDULE NUMBER 2 (Supersedes all prior rate schedules)

EFFECTIVE JUNE 1, 1988

NUMBER OF INSERTIONS	1 TIME	2 TIMES	3 TIMES	4 TIMES	6 TIMES	12 TIMES
FULL PAGE	\$70.00	\$63.00	\$59.50	\$56.00	\$52.50	\$49.00
HALF PAGE	\$42.00	\$37.80	\$35.70	\$33.60	\$31.50	\$29.40
QUARTER PAGE	\$24.00	\$21.60	\$20.40	\$19.20	\$18.00	\$16.80
1/8 PAGE	\$13.50	\$12.15	\$11.48	\$10.80	\$10.13	\$9.45
BUSINESS CARD	\$6.70	\$6.03	\$5.70	\$5.36	\$5.03	\$4.69

PAGE SIZES

FULL PAGE: 12.25" X 10.5"

HALF PAGE: 10.5" X 6.125" or 5.25" X 12.25"

QUARTER PAGE: 10.5" X 3.25" or 5.25" X 6.125"

1/8 PAGE: 5.25" X 3.25"

BUSINESS CARD: 2" X 3.5"

NOTES

1. The rate is based on the total number of times per year for the same size ad or larger.
2. Copy can be changed at any time.
3. Rate is for camera-ready copy - there are additional charges for copy requiring setup. Charges will depend upon amount of setup work required, and will be based upon actual cost.
4. Ads not conforming to the above sizes will be billed according to actual space required according to the rate for the next smaller size.
5. Send artwork or copy to Jim Romelfanger, K9ZZ, Editor, 412 1/2 Ash Street, Baraboo, Wisconsin 53913, or, for more information, please call our Chairman, Ken Ebner, at 608/742-3560. Camera ready ad deadline is the 10th of the month. Ads requiring typesetting must be received by the first of the month.

The Shopping Center



THE ORIGINAL MIDWINTER

SWAPFEST

WAUKESHA EXPOSITION CENTER
HIGHWAYS J & FT
WAUKESHA, WISCONSIN

1989 WINNERS
Doug Kleemann, KA9LWN - Shawano
David Wright, WB9VOZ - Wausau

Both Sponsored By

THE WEST ALLIS RADIO AMATEUR CLUB
P. O. Box 1072 Milwaukee, Wisconsin 53201

HAM IT UP EVERY SPRING!

MADISON SWAPFEST

April 8, 1990

DAVE COUNTY EXPO CENTER
FORUM BUILDING

Sponsored by MARA/WB9AER

P.O. Box 8890

Madison, WI 53708-8890

608/249-7579

Ans. Machine

SOUTH MILWAUKEE AMATEUR RADIO CLUB SWAPFEST

July 7, 1990

(Held every July)

American Legion Park
Shepard Ave. Oak Creek, WI

PO Box 102

Milwaukee, WI 53172

SWAPFEST 1990

Saturday, May 12
8 a.m. - 2 p.m.

Jefferson County Fairgrounds
Hwy. 16 West Jefferson, WI

Tri-County
Amateur Radio Club

P.O. Box 112
Jefferson, WI 53549

RECHARGEABLE BATTERIES

FOR: COMMUNICATIONS & TELEPHONE EQUIPMENT • PUBLIC SAFETY • PAGING
EMERGENCY • PHOTOGRAPHY • INSTRUMENTS & MEDICAL EQUIPMENT
OFFICE EQUIPMENT & COMPUTERS • TOOLS
ALSO AVAILABLE: ALKALINE, LITHIUM, MERCURY, SEALED LEAD ACID



Catalog Available

E.H. YOST & COMPANY
7344 TETIVA ROAD
SAUK CITY, WISCONSIN 53583
TELEPHONE (608) 643-3194
FAX # (608) 643-4439

QSL Cards

QSL Business Cards

Write or Call TODAY for your
FREE SAMPLES!

The Little Print Shop

P.O. Box 1160
Pflugerville, Texas 78660
(512) 990-1192

AES

★ New Location! ★

One of the World's Largest Ham Dealers right here in Wisconsin!

All Major Brands ★ Large Stock ★ Fast Service

AMATEUR ELECTRONIC SUPPLY

5710 W. Good Hope Road • Milwaukee, WI 53223

Phone (414) 358-0333 • FAX (414) 358-3337

Wisconsin WATS line: 1-800-242-5195

Call Toll Free outside of Milwaukee metro area

HOURS • Monday thru Friday 9-5:30; Saturday 9-3

OMAR
WA8FON

RON
N4UHC

STORE 404-760-8846

OMAR ELECTRONICS, INC.

ALL YOUR AMATEUR NEEDS

3650 HWY. 138 N.E. SUITE C

LOGANVILLE, GA 30249

OFFICE 404-466-3241

MARC

LYNN
N4UHC XYL

VCR SERVICE

North Freedom Electronics

Same day service by appointment

Computers
Stereos
CD's

Musical Instruments
Auto Sound
CB's

Sorry No TVs
Hours Vary - Call Ahead

201 E. Walnut
Box 18
North Freedom, WI 53951

John Schmelzer
608-522-4366

Jerry's Hallmark Shop

Cards • Party Supplies
"Where Thoughtfulness Happens"

516 Oak Street
Baraboo, WI

356-6901

CRAIG HENDERSON
N8DJB

Ph. (419) 352-4465
Hrs. 11-7

C. A. T. S.

Rotor Parts & Repair

7368 S.R. 105

Pemberville, OH 43450

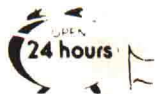
TROYER *Rexall* DRUGS

JACK D. TROYER, R. PH. — DAVID M. FUHS, R. PH.
106 - 4th AVENUE BARABOO, WISCONSIN
PHONE 356-4964

"Good Health Is Our Business"

WE MAINTAIN A COMPLETE RECORD OF ALL
YOUR FAMILY'S PRESCRIPTION PURCHASES

Darrow's



CHECK OUT OUR...
**EVERYDAY
LOW PRICES**

COUNTRY MARKET

TOTAL DISCOUNT FOODS
935 8th Street • Box 90
Baraboo, Wisconsin 53913
356-2106
We Buy Aluminum Cans



PORTAGE, WI

SWAGUR ENTERPRISES

J. S. GURSKE, K9EYY, Pres.

Wis. Distr. for Rust Evader Corp.

7240 Highway Y
Lodi, WI 53555

(608)592-5541

**RHYME
SUPPLY
INCORPORATED**



122 EAST COOK STREET PORTAGE, WIS.

COMPLETE LINE OF OFFICE MACHINES - FURNITURE - COMPUTERS

TELEPHONE
608-742-3747-5371

KEN HUTLER



RICHARD O. LUST, CAI
Certified Auctioneer/Broker
(608) 258-8880
K9APW

LUST AUCTION SERVICES

(608) 833-0011/833-2001

7552 Pioneer Place

Verona, Wisconsin 53593

Statewide Service To Hams - Since 1975

Auctioneering Real Estate

PIERCE'S
SUPERMARKETS

When in the area, shop our West
Baraboo, Fox Lake, Muscoda, Portage
North and Portage Downtown stores!